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LETTERS TO THE EDITOR

Please address letters to: The Editor, Sputnik Magazine, 2 Pushkin Square, Moscow, USSR

YOUR REQUESTS

I wonder why you do not run, perhaps in the near future, a photographic competition.

P. S. Reich, Loodon, England

We are going to present the best work of outstanding Soviet photographers in future issues.

I would like to read more about the Republics of the Soviet Union, their history, their culture and their geographical aspects and their great men, who are a source of inspiration to the young Indians.

S. N. D. Lama, Jalpaiguri, Bengal, India

Series on Republics and people—regular feature in SPUTNIK.

An article setting out methods of accident prevention, regulations for various industries, accident frequency figures and obligations of management and trades union members, particularly in the construction industry, would find wide interest among readers.

Frederick Davies, London, England

Will you try to start a new section containing stories and features about the Soviet film industry?

Riaz Ahmad Chughtai, Lahore, Pakistan

Sending gifts to friends had always been a problem for me. Happily, this was solved with the gift of a subscription to SPUTNIK.

Tansuku Raj Dhariwal, Jodhpur, India

My husband, son and daughter and myself especially like the travelogue series and the beautiful colour prints. There is not much hope for us ever visiting Russia, so could you please print more of the series.

Margaret Neil, Middleshrough, Yorks, England

LETTERS TO THE EDITOR *continued*

I picked up a copy of your publication from a friendly neighbour and enjoyed reading it very much. I say enjoyed—I should say amused—for this is quite o limited imitation of Reader's Digest, which is a trashy publicotion in the first place. I don't see why you should desire to imitote it. However, I will read anything no matter how ridiculous. So in this spirit I should like to subscribe to your magazine.

Janius Wall, Trenton, New Jersey, USA

I am very flattered that you have taken up my idea of changing the printing ond circulation of SPUTNIK to Britain. The people will be pleased at the transfer.

David Doyle, Bath, Somerset, England

Let me say thot your magazine, with its contents so informative, is helping to clear the fog of misunderstanding and distorted information, and so doing is helping to promote the cause of peace and mutual understanding among peoples with different kinds of government.

I. A. Cartagena, Los Angeles, California, USA

All we citizens of the world should know each other's environments, languages and culture. Understanding with an open mind is the key to man's existence in this complex technologicol era. If man aspires to harness the energy in the cosmos, he should also aspire to harness the energy that is contained within the top portion of his scull.

Judy Weiss, New York, USA

It is my regret that mare Americans do not read or know your magazine. Perhaps their · opinion of Russio would become much more favourable if they were better acquainted with it.

Marjorie E. Visser, Norwell, Mass., USA

Pen-Friends Wanted

Masood Akhtar, House No. 1136/11, Mohallah Mian Feroze Shah Nowshero Cantt. Distt. Peshawar West Pakistan.

TO MR. ROBERT T. JORDAN. Reston. Virginia. USA. On page 17 you will find the answer of the Ministry of Fisheries. USSR. to your letter published in SPUTNIK No. 9, 1967. (Mr. Jordan protested against the extermination of whales).

ELEPHANTS, RABBITS AND WRITERS

by Grigori Litinsky
from the newspaper
Moskovsky Komsomolets

An all-time publication record was set by Duman Père when a 301-volume edition of his works was produced. Not that he was by any means the most prolific author of all time–but no one before or since has brought out a set of 301 volumes.

Though a writer is not judged by quantity, but by quality, the question of "elephants" and "rabbits" in this field is of some interest. I use these terms because back at the First Congress of Soviet Writers in 1934, the late Ilya Ehrenburg observed: "While I myself am as fecund as a rabbit, I do contend that elephants have the right to gestate for far longer than rabbits." The whole point, as he emphasized, is the degree of talent. We may wonder equally at both the "generosity" of Dumas and the "parsimony" of Babel.

Dostoyevsky was irritated by the haste with which he was compelled to work and was envious of Turgenev's leisure. But I think that even if Dostoyevsky had had no financial worries at all, he would still have continued to write as feverishly as he did.

In Jean Richepin's story *The First-Rate Crime* the main character reflects: "While the Abbé Prévost churned out a hundred pulp novels, he wrote only one *Manon Lescaut*. Meanwhile all that Bernardin de Saint-Pierre left was his *Paul and Virginie*. There are odd geniuses who produce but one work of art, which however, remains througb the centuries like a monument."

Many such instances could be cited. Harriet Beecher-Stowe is known as the author of *Uncle Tom's Cabin*. But the 1856 edition of her collected works comprised 16 volumes. Of the total 17 volumes written by Boccaccio, only the *Decameron* is remembered.

All the more wonder at those geniuses who created dozens of works that stand the acid test of time.

Lope de Vega produced 2,200 plays. The 40-volume edition of Balzac's works represents only a fraction of the writer's fantastic output under his own name and countless pen-names, and as a ghostwriter. A 90-volume jubilee edition of Leo Tolstoi's works was published. The Russian poets Pushkin, Lermontov and Mayakovsky all died tragically young, but all produced a great deal.

OBESITY, STRESS AND HORMONES

Have ynu ever considered some nf the odd characters in literature and fnlklnre from the medical pnint nf view? The gaunt Dnn Quixote and tbe fleshy Sanchn Panza, the exuberant Gargantua and the gluttnnnus Pantagruel, the clever Hop n' My Thumb and the dainty Thumbelina?

If ynu are not a physician ynu probahly have not. Yet in real life, too, we cnme across giants and dwarfs, and penple wbn are extremely stout nr unusually lean. And even mnre curinus tbings sometimes occur: the arms, nr the chin and nose in an adult persnn suddenly begin tn grnw ennrmnusly. It is the hnrmnnes playing pranks.

Endocrinnlngy, the science dealing with sucb abnnrmalities, is rather a ynung branch nf medicine but it has bad cnnsiderable success in curing diseases associated with disturbed functinns nf tbe ductless glands.

Literaturnaya Gazeta **cnrrespnndent Iosif Khnrnl interviews Professnr Vassili Barannv, a leading Snviet endocrinologist.**

Khorol: What can you tell me about the incidence of endocrinal diseases?

Baranov: Unfortunately, it is very high. In some countries more than two per cent of the population suffer from diabetes. The incidence of thyroid disorders is also alarming. In the past ten years the endocrine system bas been found to be involved in many diseases which would seem to be completely unrelated.

Khorol: Is obesity an endocrinal disease?

Baranov: It is, and a very serious, or I should say dangerous, one at that. Obesity is the result of disturbed metabolism. Unfortunately most stout people consider themselves quite healtby. They are mistaken. Every superfluous kilo shortens a person's life. Obesity predisposes one to stenocardia and myocardial infarction. An investigation in Leningrad has shown that among elderly people suffering from diabetes mellitus, the majority are stout.

Khorol: Are tbere any effective measures to control obesity?

Baranov: Certainly, but in addition to the hormone preparations which are used for treating patients with disorders of the endocrine system, the most effective thing is self-control. Very often absolutely healthy people eat much too much. An emotional, Pantagruelian attitude to food will cause overweight. Overeating upsets the body's fuel balance. I should like to say in passing that all the popular "recipes" for slimming are purely psycbological in effect, and are intended for weak-willed persons; some are even harmful. Only a sensible diet will help keep your weight down.

Here is another situation: a man accustomed to physical work is shifted to a desk job. He has always been a hearty eater and he does not slack off now though he gets no exercise. As a result he grows fat.

To my mind obesity is no less sinister than TB. As I see it there sbould be preventive check-ups of the population to reveal people inclined to obesity.

Khorol: Are there any means of controlling the activity of the endocrine glands?

Baranov: Today physicians have at their disposal a wide range of hormonal preparations which are very effective in treating disorders of the thyroid gland, adrenals and pancreas. Good results bave been obtained in treating dwarfs.

Khorol: One of the hormones secreted by the hypophysis regulates growth. Is tbere a possibility of finding a method sharply to activate this hormone, and thus raise giant domestic animals?

Baranov: That idea is no longer confined to science fiction. I would say its realization is a matter of the foreseeable future.

Khorol: In the 'twenties and 'thirties there was a popular theory about the dominating influence of the endocrine system on mental ability. Are there any grounds for that idea?

Baranov: It is very doubtful. A special journal, *Clinical Archives of Genius and Talent*, was published in the Soviet Union in those years. It was devoted to the study of the influence of endocrinal pathology on the works of geniuses. I remember one issue contained "endocrinological portraits" of great writers, poets, musicians, etc. The article on the Russian poet Lermontov (1814-1841) said he was a remarkable endocrinological personality, unique in the "combination of interactions" of the endocrine glands. Endocrinologically be was somewhere between Napoleon and Oscar Wilde.

It would be hard to concoct anything more absurd. We cannot ascribe to the endocrine system a decisive influence on the activity of the cerebral cortex, although there is unquestionably a connection between the endocrine and the nervous systems.

Khorol: What sort of connection is this?

Baranov: It has been found that treatment with tbe bormones secreted by the adrenal cortex has a beneficial effect, not only in endocrinal disorders but in mental disorders as well. The leading authority on this question is Hans Selye, a prominent Canadian scientist. He has advanced a theory of a "stress syndrome".

Khorol: Would you give some details about stress?

Baranov: Stress is a kind of "peak hour" in our life, a moment of nervous tension.

A person wbo sees he has won a car in a lottery and a hockey fan when his side scores a goal are in exactly the same physiological state.

Khorol: Is stress harmful for the health?

Baranov: Yes and no. A happy or an unhappy event which causes stress increases the intensity of life and at the same time accelerates the wearing out of the organism. On the one band stress injures the organism; on the other, the organism adapts itself to the stress. Any factor that involves intensification of the vital activity automatically cuts in the body's defence system.

Khorol: How is that done?

Baranov: Various stress-causing factors can influence the organism, such as cold, trauma and unexpected news. All of them lead to the same condition. The "anxiety reaction" is tbe first stage, followed by the "resistance stage" which taps the body's reserves, giving additional strength to the excited organs.

Finally there comes the "stage of exhaustion"—the consequence of overstrain. The body's ability to withstand strain is not unlimited. It is here that the glands secreting hormones which put the nervous system in a state of defence may prove inadequate. This can cause a nervous or cardiovascular disease.

To a certain degree stress causes wear of tbe organism, but paradoxical as it may seem, one is not advised to strive for complete relaxation. Wbat is important is to learn to treat one's body sensibly and control one's vital tone. One must learn the art of living a full life while reducing wear to the minimum.

* * *

SWING-WING AIRCRAFT

by Konstantin RASPEVIN
from PRAVDA

With wings outfolded, the swing-wing plane flies at low speeds. With wings swept back, it is well past the sound barrier.

The supersonic swing-wing plane took off and soared skyward. Seconds later its wings, spread at almost right angles to the fueselage, swept back to the tail, giving the aircraft the appearance of a single delta wing, forming one whole with the fuselage and the tail. The arrow-like silhouette zoomed out of sight.

This was what spectators saw last summer at an air show near Moscow. I visited a military airfield, saw the rocket-carrying swing-wing craft, and interviewed pilot Alexander Fedoroy.

"Speed is the main requirement in modern military aircraft," be said. "Then comes ability to get by with a minimum length airstrip. But tbe higher the speed of aircraft tbe longer the run needed for take-off and landing."

The problem designers, engineers and technicians faced was to build aircraft capable of combining optimum performance with botb supersonic and low speeds.

Aircraft with movable wings proved to be tbe answer. Before take-off or landing, the pilot spreads the wings to give the plane straight wings possessing great lifting power. Since the speed is consequently low, take-off and landing runs are short. Such planes can operate from small airfields even in poor weatber.

Once the wings are swept back to tbe tail, the plane can develop supersonic speeds. In swing-wing aircraft the pilot can also cope with tbe traditional problem of speed plus altitude; he can fold the wings and develop high speed at low altitudes, or spread the wings and cruise slowly, saving fuel.

Fedoroy, who piloted a swing-wing plane during the air show told me: "It seems to combine several types of aircraft at once. It feels like boarding a new plane every time I alter the sweep. During take-off I straighten the wings. For higher speed I fold them back. For a long-distance flight I again unfold the wings and cut the speed. If I am radioed an urgent message, I fold the wings and rush to the scene at supersonic speed.

"The plane resembles a bird which adjusts its wings in flight. Such aircraft have innumerable advantages.

"In time, I believe many cargo and passenger planes will have swing-wings. These are the wings of the future."

A CIRCUS NUMBER

by Armen ZURABOV

condensed from *VECHERNY TBILISI (Tbilisi Evening News)*

It was one of those wretched, miserahle days when nothing seems to go right and at the end of it you realize that all your work will have to be scrapped and a new heginning made. The kind of demoralizing day after which you must regain faith in yourself, otherwise it will become quite impossihle to sit down at your desk the following morning and put pen to paper.

I didn't write a readable line that day. Aimlessly and desperately I roamed the streets of Thilisi, dreading the idea of meeting anyone I knew, until I chanced to stop in front of the city circus. Mechanically, without deciding or thinking of anything, I hought a ticket and walked in.

The first part of the show was drawing to a close. Two turrets with ladders up the sides stood in the ring, with two parallel tightropes strung between them. Midway, a small, square platform lay on the ropes. Six performers—four men and two women—were in the act. The women climhed on the men's heads and the men, lightly and effortlessly, went up the turrets and crossed the tightropes.

Then the smallest and oldest acrohat took a long, thick pole called a perch and rested it on his forehead, and another performer—young, hroad-shouldered and tall—stood first on his hands on the other end of the pole and then did a head-stand, spreading his arms and legs for equilibrium. The smaller one, balancing him, began to mount the ladder.

But before he had even picked up the perch, I had seen him take several deep gulps of air, and I recognized in him a state of high tension, the expectation of great difficulty. When the perch with the man on top stood upright on his forehead, his face was serene. I had seen how he had achieved that serenity and watched him with heightened interest.

The man unhurriedly mounted a turret, carefully turned to face the ropes, placed a foot on each rope, slightly bent his legs at the knees, spread out his arms and took the first step.

His steps towards the shaky platform were short, precise and incredibly confident. When he reached it, the audience sighed with relief. The question was, how was he going to get down and how would the perch be removed from his forehead?

He stood on the platform for a moment, as if testing untrodden ground. Suddenly his legs began to douhle—slowly, not under the weight of the perch, hut obeying a hidden inner force which was fighting the perch, the man poised on top and the taut, resiliently tremhling ropes.

The man sat down on the platform

and stretched out his legs. Then, cautiously, he bent out one leg sideways, pusbed it against the edge of the platform and slowly began to tip to one side. I felt a throbbing pain in my neck muscles and instinctively grabbed at the edge of the passage wall where I was standing.

The perch seemed to bave grown into his forehead. His head strained upwards. His legs, slowly bending and straightening out again, were turning his body beneath the percb, the platform shaking at each movement. The perch with the man standing on his head made a revolution on its own axis and came to a standstill. The man beneath was again sitting with outstretched legs just as he had before his "pirouette".

The audience dared not applaud. Everyone realized that he had yet to regain his footing, cross the ropes to reach the other side and descend the ladder.

He brougbt his legs together, bent them at the knees and rested his arms upon them. Then his legs began to lift him. It was unnatural—it required the exertion of more than the muscles which made themselves visible on his calves and thighs. It required extra pressure against tbe platform. His hands pressed on his knees and be was being lifted by that inner force, whicb was calmly and gradually increasing, helping him to stand erect.

When he finally did straighten up, be stood quite still for a few moments to get a firm foothold on the ropes and then made his first probing step. I was certain that the worst was behind him and that however tired he was, he would see it through.

Suddenly he stopped, took a step back to the platform and stood, knees bent, looking intently upwards. Then be straightened out again and spread his arms. It seemed that he was walking more slowly than he had before he reacbed the platform, because now everyone wanted him to finish his number quickly while he still had strength.

He stood a minute on top of the other turret, then, as before, walked leisurely down the steps as if he were just beginning tbe number, stepped into the middle of the ring, briskly dropped the percb from his forehead, letting the man jump off, and, screwing up his narrow eyes, gave the auditorium a long look. Then the acrobat quickly raised his hands aloft amid shouts and whistles.

I went behind the scenes and waited for him to change his clothes. He was the famous Simado, someone told me, and his act was unique. So far, no other circus performer in the country has succeeded in mastering it.

I said everything I could find words for—only a fraction of what I sbould have liked to say. He listened to me quietly and seriously and finally gave me just one smile and brief thanks. We talked a bit longer and from a few casual words I learned that he had first performed his "trick" in Tbilisi in 1953 and bad since done it every single day for 14 years. This year, for the first time in his life, he had taken a month's vacation and now found it difficult going after the long break.

SPACE AND LAW

In 1961, while on a flight over Soviet territory, the U.S. pilot Francis Gery Powers was shot down by a ground-to-air missile. His U-2 plane, flying at an altitude of 60,000 feet, was violating Soviet air space, and no one questioned this fact.

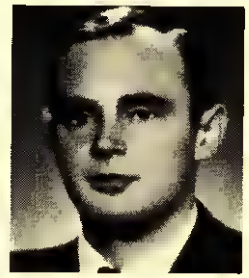
In 1957 the first Sputnik created an interesting precedant: at a height of 125 miles it flew over many countries. No one considered it a violation of any country's air space.

Supposing rocket-planes master intermediate heights, say anywhere between 12 and 200 miles. At what height will the line ba drawn—this is "permissible" and that is a "violation"?

Space exploration is proceeding at a tremendous pace and it posas not only scientific and technological problems, but legal onas as well. Hara are some of them.

SPACE MUST BE LITTER-FREE

by Gennady ZHUKOV, LI.D.,
Secretary of the Commission on Space Law, USSR Academy of Sciences
from *Novosti Press Agency Newsletter*



Artificial "stars" . . . wonderful . . . but space is being littered with rocket and instrument wreckage which can spell death to spaceship crews and cause disaster to unmanned vehicles, tbough for the present and for some time to come, the risk of collision in space is infinitesimal. Furthermore, radio signals from vehicles still in space but already scientifically useless are disturbing the work of both radio-astronomers and tracking stations in charge of contacts with spaceships, satellites and interplanetary probes.

If man is concerned with the hygienic condition of the soil, water and air, it is only natural that in our century he should see to it that space is unpolluted.

To prevent oil pollution of the sea, a convention was signed in 1954 by 20 countries, including the USSR. Laws have been passed in the Soviet Union and other countries to protect the soil, water and air from industrial waste. It is high time to introduce similar legislation with regard to space. This problem is all

the more acute since not only the space club, but the nuclear club as well, has acquired new members. There are other powers, apart from the USSR and the USA, that are armed with atomic weapons. And nuclear reactors, sources of dangerous radioactive substances, are operating in many countries.

The Moscow Treaty on the exploration and use of space by governments vetoed the deployment of nuclear weapons in orbits around the Earth or on the Moon or other celestial bodies.

Nuclear rocket engines and power installations will become widespread in the near future, and an immediate start should be made to work out measures to preclude radioactive pollution of space.

Of no less importance is the need to prevent earthly micro-organisms from penetrating space. This is not simply a question of organisms that cause disease, but of microflora in general, for these can propagate in space and distort the real picture. This could prevent a correct solution of the problem whether life on Earth originated on our planet or was brought from other worlds. Legal principles must be worked out to govern the sterilization of space vehicles, and other prophylactic measures.

Space should not become a dump for vehicles that have fulfilled or failed their mission. Their safe return to Earth is technically feasible. The automatic switching off of their radio-transmitters after they have broadcast the requisite information is no problem either.

Under the Moscow Treaty of 1967, any country is entitled to demand international consultations and discussions with a view to preventing undesirable consequences which could ensue from a space experiment. A consultative group of the Space Research Committee (COSPAR) has the job of determining these consequences.

Space hygiene is a pressing problem of today. All countries should be concerned about its solution.

SHOOTING STARS ARE DANGEROUS

by Professor Alexander PIRADOV
from IZVESTIA

Wreckage of space vehicles has fallen on the earth several times, sometimes hundreds and thousands of miles from the nearest launching site.

By 1967 over 1,000 artificial objects were orbiting the Earth, and their number is likely to increase constantly. Not so long ago only two countries were launching satellites. Today, apart from the Soviet Union and the United States, France, Britain, Canada, Australia, Italy, Czechoslovakia and Japan have put their own into orbit.

A new organization has been formed in Western Europe which plans to launch satellites into orbit from a site in Australia. Britain is to build the first stage of the rocket-carrier, France the second and the German Federal Republic the third. Under UN auspices the USSR, USA and France have built an international rocket-launching site in Thumba, India. A similar site is being built in equatorial Brazil.

New members are continually joining the space club, and space is becoming more and more crowded. This increases the danger of collisions in space and the possibility of objects crashing to earth.

The Legal Subcommittee of the UN Committee on the Peaceful Uses of Outer Space has been discussing the draft of an international agreement on responsibility for damage inflicted by objects launched into space (submitted by the Hungarian People's Republic in 1964). The Subcommittee has also been studying drafts submitted by the United States and Belgium.

Although these drafts have been under consideration for several years now, legal experts have failed to reach agreement. It is an arduous, tortuous discussion, requiring a rapprochement of different legal concepts.

To Mr. ROBERT T. JORDAN

(see Letters page 5)

In 1946 an International Convention to control whaling was concluded. The Soviet Union adhered to this Convention from the time she began whaling in the Antarctic. Today, 17 countries have signed the Convention.

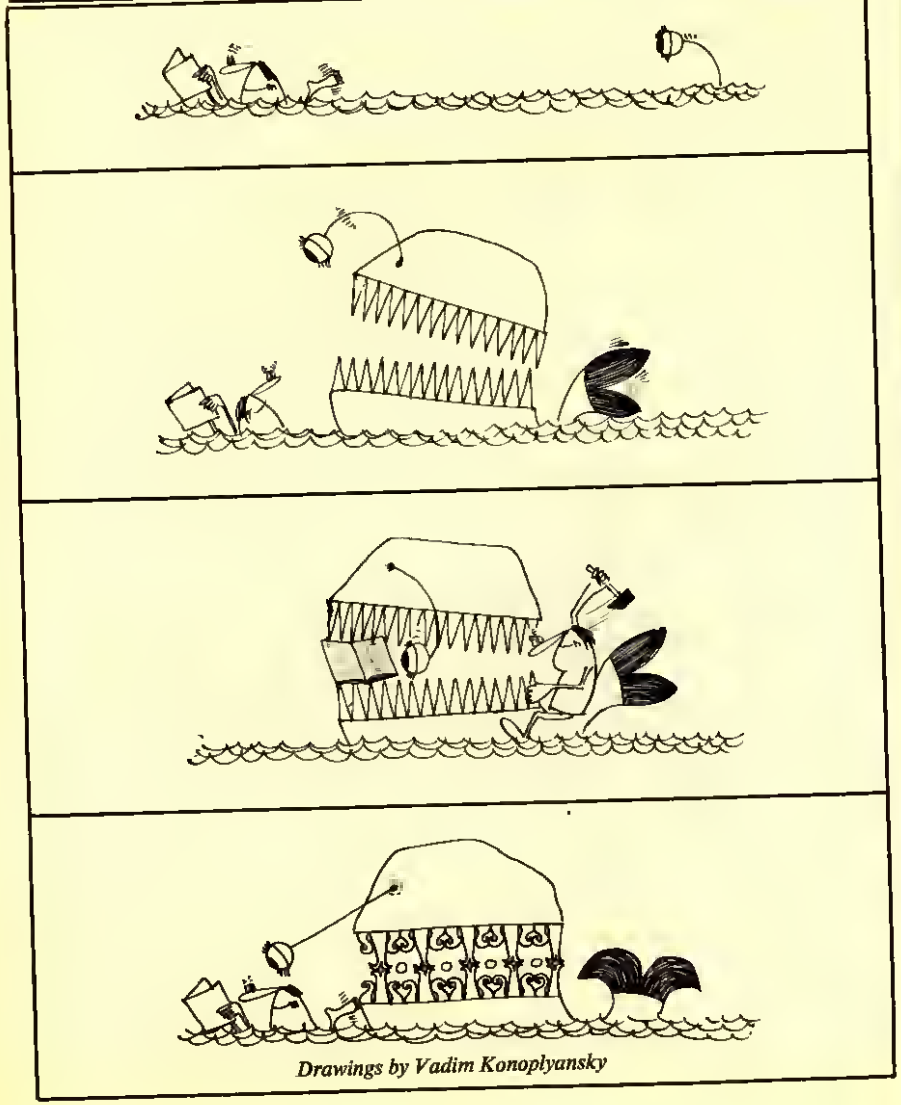
At the annual sessions of the International Whaling Commission the USSR constantly advocates the adoption of effective measures to control fishery. Thus, in 1966 at the 18th session of the Commission the Soviet delegation submitted a proposal for reducing the catch limit in the Antarctic for the 1966-67 season to 2,500 blue whale units* as recommended by scientists, and simultaneously reducing the size of the fleet engaged in the whale fishery in that area by half.

Although this proposal was not adopted, the Soviet Union withdrew one of its whaling flotillas from the Antarctic.

At the 19th session in 1967, the Soviet delegation again urged the necessity of cutting the catch limit to 2,500 blue whale units in order to create conditions not only for preserving by increasing the whale population. This proposal was not supported by the other member countries. Nevertheless, the Soviet Union's efforts to achieve rational utilization of the resources of the ocean give grounds for hope that a solution to this problem will be found.

*1 blue whale unit = 1 blue whale = 2 finbacks = 2.5 humpbacks = 6 sei whales.

Mr SPUTNIK



Drawings by Vadim Konoplyansky

VOICE OF THE BRAIN

DOES EXTRA-SENSORY PERCEPTION EXIST?

from RABOCHAYA GAZETA (Ukraine)

Is it a rare natural phenomenon or something all of us are capable of? And how plausible are the hypotheses explaining "bio-information", the "voice of the brain"?

These questions were put by Oleg Gusev of *Rabochaya Gazeta* to Alexei Gubko of the Ukrainian Institute of Psychology, who has devoted many years to the problem of parapsychology.

"'Para' means 'alongside of', 'beside' in Greek," A. Gubko says, "and the meaning of the word 'psychology' is well known. Parapsychological phenomena are believed to be perceived without the help of the ordinary sensory organs. For a good hundred years scientists have considered the core of extrasensory perception to be telepathy, the phenomena of psychophysical influence at a distance of some living organisms on others, or 'biological radio communication', as they call it now.

"Among the active supporters of extra-sensory perception were Alexander Butlerov, Vladimir Bekhterev, Konstantin Tsiolkovsky, Alexander Leontovich, Ilya Mechnikov and many other Russian scientists. This fascinating branch of science has developed impressively from the first experiments in the late nineteenth century to the eleborate investigations carried out today at special research institutes."

Should we regard as accidental all the frequent instances of remarkable coincidence, of "thought reading" at a distance?

"This is unlikely in view of the great frequency and astounding accuracy of such coincidences. Here is a story about the actor Mikhail Kuni.

"In his youth Kuni studied in Moscow, while his mother lived in Vitebsk in Byelorussia. One night he dreamed that a rat had bitten his mother and she had developed gangrene of the foot. The young man woke up in great agitation, but his friends tried to dispel his fears: it was ridiculous to believe in dreams. At that moment there was a knock at the door. The postman handed Kuni a telegram announcing that his mother was ill. When he arrived in Vitebsk, Kuni learned that his mother was really suffering from gangrene as a result of a rat bite.

"There are a great many such incidents on record."

And yet I would like to hear an explanation of these seemingly strange phenomena, to hear the opinion of experimenters.

"Take for example the experiments conducted by Vladimir Bekhterev, the outstanding nerve specialist. In one of them a young, highly sensitive girl sat at a table on which a dozen objects were laid out—a match, a box, a cigarette, a comb, etc. The experimenters sat with their. backs to the girl at a distance of 20 feet and were screened from her by curtains. In front of them was a hat with pieces of paper witb the name of one of the objects written on each.

"When an assistant silently took one of the papers out of the bat and handed it to the experimenter, the latter began to think of the object and visualize it in his mind. As a rule the girl took the object whose image the experimenter wanted to convey to her mentally."

Is there any theoretical explanation?

"Many scientists believe that the buman brain radiates certain electromagnetic waves, very much like a radio station, while the brain of another person, like a radio receiver, catches and interprets them. There is nothing supernatural in this bypothesis, since it has been proved that our entire bodies are permeated with electricity.

"Biocurrents are produced as a result of biochemical and biophysical processes involved in the decomposition of the nutrients assimilated by the organism. True, they are infinitely small. The bioelectric potential detectable in the brain is sometimes measured in millionths of a volt.

"However, there are reasons to believe that this negligible energy is emitted into space. Back in 1919 Bernard Kazhinsky, one of the founders of the scientific theory of telepathy, attempted to establish the circuit of a nerve generator.

"Proceeding from Kazhinsky's hypothesis, Alexander Leontovicb, Member of the Ukrainian Academy of Sciences, and his son, Mikhail Leontovich, also a Member of the Academy, estimated that the bioelectromagnetic waves emitted by the human brain must have a length of about one centimetre. Their frequency must be extremely high, of the order of a thousand million cycles per second, and their velocity that of light. These factors may be sufficient to compensate for the weakness of their generator and enable them to travel over vast distances.

"The electromagnetic theory is not the only way of explaining the phenomena of extra-sensory perception. Most scientists are now inclined to believe that the brain radiates a special, hitherto unknown, type of energy which serves as the carrier of parapsychological information."

What can you say about the practical application of parapsychology—in particular, the bioelectric contacts of the human brain?

"It is too early to speak about that at this stage, but in principle certain extra-sensory methods can be put to practical use. For instance, mental suggestion can be of great importance in the process of education, in addition to the teacher's verbal instructions and personal example. At present this suggestion is not very effective because it is not made consciously.

"Among future technological applications of extra-sensory perception there could be remote mental control of machines by an aircraft pilot, astronaut or engineer.

"In conclusion I would like to quote an optimistic statement of the French parapsychologist R. Kherumian who said: 'We make bold to assert that one day the development of parapsycbology will direct our entire civilization on to a new road'."

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CEREBRAL RADIOS

(An extract from Biological Radio Communication, *by Bernard Kazhinsky, published in 1962 by the Ukrainian Academy of Sciences)*

I decided that it was important to experience the "mechanics" of telepathy myself and asked Vladimir Durov, a noted animal trainer, to induce in me some motor reflex to see what it would feel like.

"Oh, that's easy, only sit still," he said firmly, and the experiment began.

Without looking at me, Durov took a pencil and quickly wrote something on a sheet of paper. He put it on the table, written side down, covered it with his palm and began looking at me. I felt nothing unusual but, quite automatically, the fingers of my right hand touched the skin behind my ear. I barely bad time to lower my arm when Durov extended the paper to me. "Scratch behind your right ear," he had written.

"How did you do it?" I asked incredulously.

"All I did was imagine that the skin behind my right ear hadly wanted scratching and that I had to lift my hand to do the scratching. Now what did you feel?"

"Of course I did not feel any thought transfer. I merely wanted to scratch behind my ear."

Durov looked triumphant:

"The remarkable thing is that you made the movement that had been conceived in my brain as if you had followed your own association of ideas and movements, as if you had acted on orders from your own brain, and orders of a dual nature: you felt the effect of skin irritation behind your ear and your hand made the movement to the ear, and it was the ear I wanted it to be."

"In other words, Vladimir Leonidovich, your brain transmitted a short radio broadcast and mine

received it unconsciously," I observed.

"Both of us are live radio stations," Durov joked.

That incident took place in 1922.

The mechanics of the process are something like this:

Experiments I made at that time led me to discover, in preparations from an animal nervous system, elements of the nerve that resembled structurally the coils of a solenoid or the coupled windings of a capacitor. It was a semblance of what radio engineers term the Thomson oscillating circuit—a vibrator of currents and outward electromagnetic waves.

To check the accuracy of my conclusions I built what is known as a "Faraday cell", to stem the spread of the waves. Experiments with the cell bore out my assumptions about the electromagnetic essence of the processes accompanying the act of thinking.

Further studies of the physical peculiarities of the ear in the light of the biological radio-communication theory, then in its infancy, led to the organ of hearing being regarded as an analyser of a previously unknown irritant—the bioelectric wave of an acoustic frequency—reaching the brain from the outside.

Research into the eye structure in 1952 brought a new hypothesis. In addition to seeing, the eye was believed to send out electromagnetic waves of a certain frequency range that can affect man and animals when they are being looked at. The waves were said to be able to influence man's behaviour, impel him to action and stimulate emotions, images and thoughts. The emission by the eye of electromagnetic waves of a certain frequency range was referred to as "visual bio-radiation".

However, man may glance back under the action of a look without seeing the sender of speech signals. Apparently man (and vertebrates too) have another organ responsible for biological radio communication. It could well be the pineal gland, which consists of a nerve substance and is located in the brain's occipital region, near the cranium's centre, in front of the cerebellum and almost right above the top of the spine.

Incidentally, the functions of man's pineal gland were known to the Indian yogi centuries ago but remain largely uninvestigated to this day. The pineal gland is known to be much larger in children than in adults and more developed in adult women than in men. Possibly it retains the undeveloped visual ability of what might be called the third eye, which "sees" and emits outward magnetic waves like the ordinary organ of vision.

* * *

BIOWAVE COMMUNICATION

by Yuri MORALEVICH

Some scientists believe that biological information is carried by some undiscovered waves of an entirely different physical character from ultralong waves. Research is being conducted by a group working under Professor Ippolit Kogan, chairman of the Biological Information Section of the Popov Radio-Engineering and Communication Society in Moscow.

When encephalographs — recorders of the intensity of brain biocurrents—failed to "catch" the real waves of telepathy Professor Kogan turned to the experience in atomic physics. On many occasions nuclear scientists were unable to detect elementary particles but only traces of their action. Professor Kogan and his team decided to apply their own "trace" method of investigation.

The moment of thought transmission from the experimenter (the sender) to the recipient (or "percipient") was found to be marked by drastic changes on the paper tape encephalograms of both. In Professor Kogan's opinion, wave transmission and reception of thought does occur, though the curves on encephalograms are not coded thougbts.

from the newspaper SELSKAYA ZHIZN

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TELEPATHIC SESSION MOSCOW-NOVOSIBIRSK

by Boris YAKOVLEV

from VECHERNYAYA MOSKVA

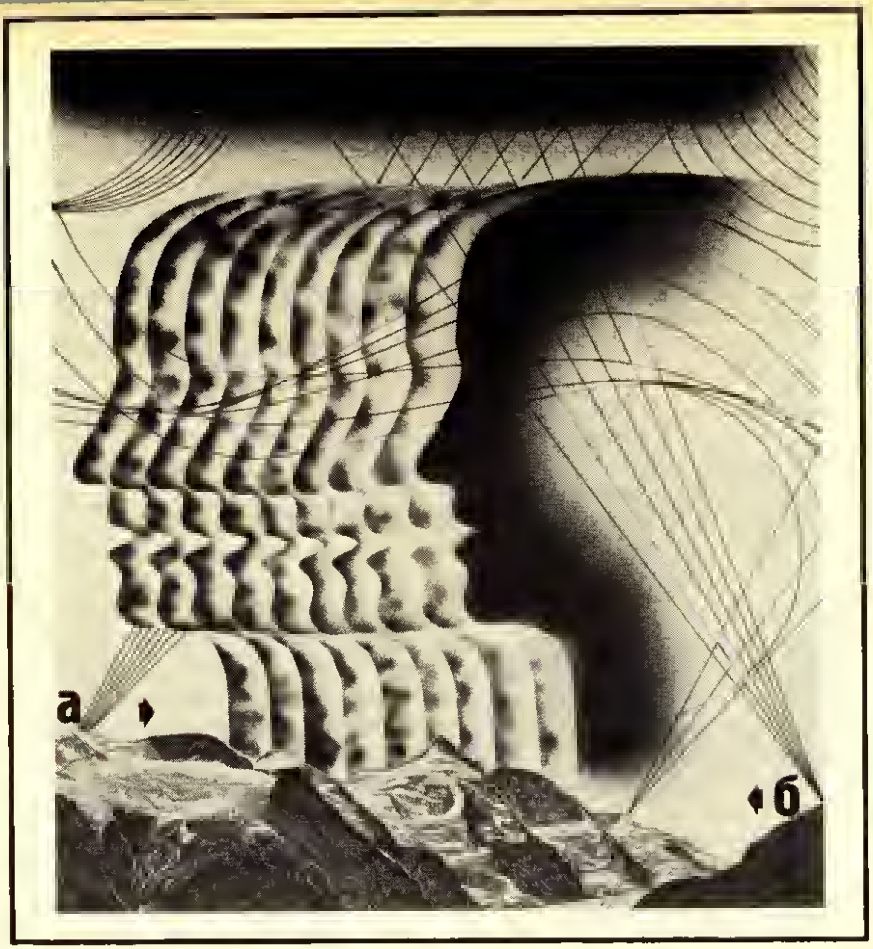
I heard a lecture on parapsychology at the Polytechnical Museum in Moscow, the headquarters of the *Znaniye* (Knowledge) Society. Yuri Kamensky, the biologist, told the audience about a telepathy session between Moscow and Novosibirsk in Siberia in which he acted as the transmitting medium, the inductor.

His messages were received at the Academy of Sciences settlement near Novosibirsk by Karl Nikolayev, a Muscovite known for his outstanding ability to receive biological signals. His behaviour during the session was observed by a group of scientists of the Siberian branch of the USSR Academy of Sciences.

Karl Nikolayev "began reception" exactly at midnight local time. His task was to describe objects shown to him mentally by Yuri Kamensky in Moscow, nearly two thousand miles away. At the same time, 8 p.m. in Moscow, a special commission gave Kamensky the first object, a steel spring; fifteen minutes later he was given a coffee pot, and so on, a total of six objects. The commission had selected these objects beforehand, but neither Kamensky nor Nikolayev knew anything about them.

"I tried to achieve complete physical and mental relaxation," Yuri Kamensky said. "I had the mental image of the 'receiver' before my eyes, and I tried to convey to him the picture of the first object, the spring."

Karl Nikolayev sat in tense concentration, his fingers feeling the



contours of an object visible only to him. "The glint of metal," he said slowly, "looks like a coil . . .".

"Nikolayev correctly described all the objects," Yuri Kamensky told us. "I believe that any person is capable of transmitting and receiving such communications. Like any other ability, it has to be developed by training. Of course, this ability is not the same with different people, but the same is true of the gift for music, for instance. It is quite possible that at the dawn of their development people used 'radio communication' on a much greater scale and lost this ability when other means of communication were found."

* * *

*Sputnik's *editors are interested in reports of telepathic communication between people, or between people and animals. We will welcome any information our readers can offer us on this subject, and shall be glad to publish the more interesting facts.*

In the following article, we publish an excerpt from the book The Universe. Life and Reason *by Professor Iosif Shklovsky, the eminent astrophysicist, on a subject that touches on various fields of science — including astronomy, biology and paleontology.*

As it is a complex question, we precede the article with some background material taken primarily from Irina Radunskaya's popular science book Wild Ideas, *recently published in the Soviet Union.*

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DID AN EXPLODING STAR KILL THE DINOSAURS?

by Professor Iosif SHKLOVSKY

About seventy million years ago, the dominant living things on Earth were giant reptiles. Then in a relatively short time they died out. Scientists have long puzzled over the cause of their sudden extinction.

In 1957 Professor Iosif Shklovsky, and a colleague, Professor V. Krasovsky, put forward the hypothesis that the extinction of the dinosaurs could have been brought about by the explosion of a supernova—a star exploding or flaming up—in the vicinity of the nearest stars, subjecting the whole solar system to an intense flux of cosmic rays, and raising the intensity of the background radiation of the Earth's surface to a level much higher than normal.

Professor Shklovsky is famous for his views on the origin and effects of supernovae, and for his speculations on the possibility of life

on other planets in the universe and on the existence of "supercivilizations" far in advance of our own.

His interest in supernovae began many years ago. In 1948 he put forward tbe hypothesis that the Crab Nebula is what is left of a supernova that Chinese astronomers recorded in the year 1054. When the star exploded, he suggested, particles were scattered in every direction at tremendous speeds. Protons (positively charged hydrogen nuclei) broke away from its magnetic field and became basic components of the cosmic rays that fall on our planet and otber celestial bodies.

The electrons, on the other band, being so much smaller than protons, remained trapped in the magnetic field, emitting light and radio waves.

In 1949 the Crimean Observatory began testing Shklovsky's bypothesis, but its radio telescope was too weak, and its situation was too unfavourable for observation of the Crab. The same year, however, Australian astronomers registered unexpectedly strong radio-emission from the nebula.

From study of the emissions radio astronomers and astrophysicists concluded that some 6,000 years ago a remote star flared up, whose light finally reached Earth five thousand years later in 1054. The new concept, however, was not immediately accepted. There were many fine points about the phenomenon whicb were incomprehensible at the time. It was only in 1954 that Soviet radio astronomers were able to make definite conclusions, which were confirmed two years later by their American colleagues who carried out a series of observations at Mount Palomar.

Vitali Ginzburg, now a member of the USSR Academy of Sciences, estimated from the radio-emissions just how many electrons were trapped in the magnetic field of the Crab. As the number of protons that escaped would be approximately equal, here was an estimate for the quantity of cosmic rays originating from the nebula; this quantity could also be determined by measuring the flux of rays reaching Earth.

His theoretical deductions, however, did not agree with the experimental data. The flow of rays was too great for all of them to bave come from the Crab. There must be other sources.

This led Shklovsky to searcb the chronicles for evidence of supernovae, and astronomers to search the sky. The chronicles recorded the sudden appearance of a very bright star but were vague about location; but the astronomers found the area of interest, and powerful telescopes were trained on it. As with the Crab, a radio source was found, coinciding witb a nebula whose radio-emission was more powerful than the radiation of ligbt.

One of the most powerful radio sources found in this search is in the constellation Cassiopaeia. Its radio-emission, if it were visible, would be more brilliant than the Sun, but its light radiation is so weak that the nebula associated with it is only visible with powerful telescopes.

This powerful "radio-generator" appeared about 300 years ago, but the flare-up was not observed at the time because the supernova was masked by clouds of interstellar matter.

There are other spots as bright, radio-speaking, as the nebula in Cassiopaeia. One is the Cygnus-A galaxy, though it is scarcely visible with an optical telescope—only two tiny faint spots. Its radiation appears to be similar to the Crab's, but it is extremely powerful, ten times as powerful in light and radio-emission as our own Milky Way galaxy.

The American astronomer Walter Baade considered it too colossal to be the result of the outburst of a supernova, and suggested that it came about through the collision of two galaxies. On the other hand, Victor Ambartsumyan, director of the Byurakan Observatory in Armenia, thinks it something different. He holds the view that Cygnus-A is a rare case of a galaxy exploding and breaking into two parts whose nuclei are flying apart at colossal speed. Observations carried out at Byurakan seem to indicate that Ambartsumyan's bypothesis has the greater probability.

More recently other objects have been discovered that are baffling astronomers. They call these mysterious bodies "quasars", meaning quasi-stellar radio sources. On the radio map ot the universe they appear not as luminous patches like radio nebulae or radio galaxies, but as quite well-defined specks or dots.

The quasi-stars emit light as well as radio waves and what is really remarkable is that their brightness fluctuates. Thus quasar 3C445 increased 20-fold in brigbtness between 1965 and mid-1966, and then began to fluctuate rapidly, falling every three weeks by anything from 10 to 70 per cent. Otber quasars, bowever, do not display such marked behaviour.

There are several major theories about tbe origin of quasars, all different in vital respects, even on such questions as how far away and how big they are. Certain effects give astronomers reason to think that they are buge, very intense, and on the outer edges of the universe. But if these effects are explained by some other cause, then the quasars come much nearer and are reduced considerably in dimensions.

Professor Shklovsky is one of those who think that radio stars are probably the exploded nuclei of galaxies extremely remote from us, and that the energy released by them in the form of cosmic radiation and magnetic fields is hundreds of millions of times greater than the energy released during the explosion of a supernova.

* * *

Professor Shklovsky writes:

What would happen to the inhabitants of the Earth if the density of cosmic rays in the atmosphere of our planet increased a hundred-fold, or only ten-fold?

Such a change in conditions would undoubtedly have serious biological (or more exactly, genetic) consequences for animals and plants. The

possibility of changes in the level of hard radiation has hitherto been completely ignored in analyses of the evolution of species. Yet the natural background level of radioactivity in the lower atmosphere and in water is one of the causes of spontaneous mutations—sudden, abrupt changes in the various biological characteristics of species, later passed on through heredity.

Various species, however, react differently to radiation. For those with a short life cycle, for example, it requires an increase in radiation dose of a hundred, or a thousand, times to double the frequency of mutations. With long-living species the mutation rate can be doubled by an increase of radiation dose of only three to ten times.

The average radioactivity of the lower atmosphere is 0.12 roentgen per year. Two-thirds of this radiation are due to terrestrial factors, mainly to the natural radioactivity of the Earth's crust, but 0.04 roentgen a year comes from cosmic rays.

Highly organized, highly specialized animal species with a relatively small number of individuals are particularly vulnerable. A long-period, ten-fold raising of the level of ionization in the environment, lasting tens of thousands of years, could have catastrophic consequences for them.

In 1957 Professor V. Krasovsky and I put forward a hypothesis to explain the well-known extinction of the ancient giant reptiles at the end of the Cretaceous period, postulating that it was the consequence of a steady increase in cosmic radiation to a level scores, perhaps hundreds, of times higher than normal. This could have happened if a star had flared up as a supernova somewhere within a distance of five to ten parsecs from the Sun. A parsec is equal to 30.8×10^{12} km, while the distance from the Earth to the Sun is about 15×10^{7} km.

A test of this hypothesis would be palaeontological evidence that the reptiles died out within a period not exceeding several tens of thousands of years. There is still no reliable information on how long the general extinction of the reptiles took, in particular, the extinction of the dinosaurs. One could wish that palaeontologists would interest themselves in that question.

It would also be quite possible for such radiation to give rise to factors favourable to evolution in some species.

And it is possible that a high level of radioactivity brought about by cosmic circumstances occurring thousands of millions of years ago (the explosion, for example, of a supernova) could have stimulated the formation of complex organic compounds from simple ones, and initiated life on Earth.

What Are Supernovae?

"Normal" stars—from the moment of their birth in the condensation of a contracting gaseous dust cloud—live quietly to finally become superdense cold "black" dwarfs.

But all stars do not follow such a peaceful course of development; some explode at a certain stage, flaring up in colossal cosmic fireworks. We call them supernovae.

We do not know of any catastrophe more immense than the explosion of a supernova. For some days the star increases in brilliance by as much as a hundred million times, and for a short time that one star gives out more light than all the thousands of millions of stars in its galaxy.

Supernovae should not be confused with ordinary novae. The explosion of a nova is thousands of times less intense than that of a supernova; and novae flare up quite frequently (about a hundred times a year in our galaxy alone).

In the great stellar systems like our galaxy supernovae explode on the average about once a century. If several hundred galaxies were systematically observed it is very probable that we would get confirmation of a supernova exploding in one or other of them in the course of a year.

An Explosion Produced the Crab Nebula

There are quite a number of historical documents and scientific treatises containing descriptions of the outbursts of supernovae in our galaxy. Chinese chronicles relate, for example, that in July 1054 a "star-guest" appeared in the sky so bright that it was even visible by day. It outshone Venus—the brightest heavenly body after the Sun and the Moon, and could be seen for several months with the naked eye. Then it gradually died away.

Seven and a half centuries later the French astronomer Charles Messier drawing up his famous catalogue of nebulae, noted one of unusual shape under No. 1. This object subsequently received the name of the Crab Nebula. More recent observations showed that it is slowly expanding, "crawling" across the sky. The rate of expansion of its gases is about 1,000 km a second, which is about a hundred times faster than the speed attained by artificial earth satellites.

The velocity of ordinary gas nebulae in our galaxy, however, seldom exceeds 20 or 30 km a second, so that only a gigantic explosion could have given such a large mass of gas such a high velocity. Calculations have shown that this nebula is in fact the debris of an immense cosmic catastrophe—the explosion of the supernova of the year 1054.

Nebulae as Sources of Cosmic Rays

In 1949 it was established that the Crab Nebula is a powerful source of radio-emission. The cause of this phenomenon was not long in being explained. The radio-emission is radiated by super-energy electrons moving in the magnetic fields of the nebula. The same cause also explains the general radio-emission of the galaxy.

By reason of its expansion and dispersion, cosmic rays escape from the nebula into interstellar space. Considering the frequency of supernova outbursts in our galaxy, we find this is a sufficient source for the cosmic rays that fill it.

Observations have shown that all nebulae—the remains of supernovae

—are without exception powerful sources of radio-emission of the same nature as the Crab. The nebula in the constellation Cassiopaeia is a particularly powerful source. On metre wave-lengths its flux of cosmic rays is ten times as great as that of the Crab although it is three times as far away. It was "born" only 300 years ago.

In 1963 quite powerful X-rays were observed from the Crab with the aid of a rocket carrying special instruments. This emission came, not from a star that had once flared up as a supernova, but from the nebula itself.

The Crab has many remarkable physical properties of significance for the evolution of stars and the galaxy as a whole.

Is Gravitation the Cause?

There are several hypotheses on the cause of explosions of stars classified as supernovae. In all probability the cause is a catastrophically rapid release of the potential energy of gravitation, through "collapse" of the outer layers of a star into its centre.

Let us look at this problem—so important for all modern astrophysics—in a little more detail. The decisive factor in the formation of stars from interstellar matter is the force of universal gravitation which always seeks to bring separate particles of matter together and thus form more compact bodies. Incidentally, if our Sun shrank to a radius of three kilometres, it would become ten times as dense as an atomic nucleus.

Some astrophysicists link the appearance of supernovae with this gravitational collapse, when a star is instantaneously crushed, as it were, by its own weight, and transformed into a super-dense "speck". During such a collapse energy a hundred times greater than from nuclear reactions would, in principle, be released.

Did a Supernova Explode Near Earth?

An interesting question arises—has there ever been, in the course of the geological history of Earth, a period when a supernova was comparatively close—as close, for example, as the nearest stars. To put it another way, what is the probability of one of the stars near the Sun flaring up as a supernova?

During the 5,000 million years of the history of Earth, the Sun has several times been closer than ten parsecs to an exploding supernova. If there had been thinking beings on Earth at those times they would have seen an unusually bright star in the sky, shining at night a hundred times brighter than the full moon.

The flux of radiation from an exploding star would be at least ten times greater in the ultraviolet band of the spectrum than solar radiation. This would bring about a significant ionization of the upper layers of the atmosphere, but would not have catastrophic consequences. As a matter of fact, all the ultraviolet radiation would be absorbed and none would fall on the surface of Earth.

Such an unusually bright star would shine for several months and then gradually get dimmer. Around it would form a nebula which would expand at a rate of several thousand kilometres a second; and after several hundred years it would cover a considerable part of the sky. The night sky would glow from it though the light would be quite weak, scarcely visible to the naked eye. After thousands of years the rate of expansion of the nebula would be slowed down considerably by the gradual braking in interstellar medium.

The expanding nebula would reach the solar system in about 10,000 years, and for another twenty or thirty thousand years the sun and planets would be shrouded in the cloud of debris from the supernova.

One of the main results would be that the density of primary cosmic rays in the Earth's atmosphere would be scores of times higher than normal, and for periods lasting centuries would even be hundreds of times greater.

Biologists might well find many new, interesting facts. We can only speculate, and wonder at the very complex interweaving of various factors on which the origin and development of life in the Universe depends.

PUTTING THE SUN TO WORK

Engineers in Armenia have designed a solar power unit using photo-transducers, which can raise 1,050 cubic feet of water daily to the height of an eight-storey building.

from LITERATURNAYA GAZETA

Say what thy birth, and what the name you have,
Imposed by parents, in the natal hour?
(For from the natal hour distinctive names,
One common right, the great and lowly claims.)

Homer, *Odyssey*, Book 8

Would you call your son *PAVSIKAKY?*

by Lev USPENSKY

from the book *You and Your Name*

Lev Uspensky is an expert on onomastics, the science of names. His book is not an abstruse treatise but, in the author's words, an attempt "to arouse the reader's interest in one of the most intriguing areas of linguistics, to toss in his face a few splashes from a pool that is right at his feet—he just has to stoop and scoop".

Names, it seems, are more than just convenient ways of labelling people. In 1909, for example, protracted negotiations started over the right to christen a baby Svetlana, a Slavic name now widespread in the Soviet Union.

A Lieutenant Kartavtsev, of the imperial yacht *Polyarnaya Zvezda* (Polar Star), wanted to name his daughter in honour of a cruiser on which he had served—it had been lost at Tsushima, in the Russo-Japanese War.

The priest aboard the yacht objected strongly, however, arguing that "the Orthodox Church knows no such saint".

A petition was submitted to the Czar on the point. The Court Minister Frederiks, the Metropolitan of St. Petersburg and the Oder-Procurator of the Synod were all involved in one way or another, and finally the Holy Synod pronounced firmly against this "heathen" name.

The trouble was that the name was

not in the church Calendar; the ecclesisastical view—and it was final—was that to give the child such a name would be tantamount to leaving her unchristened and without a heavenly patron.

When a child was born it was the custom for the priest to offer the parents a choice of saints' names listed in the Calendar for particular days or months. In his book *The Overcoat,* Gogol give an example:

"Three names were offered to the happy mother for selection—Moky, Sossy, or the name of the martyr Hozdazat. 'No', thought the poor lady, 'they are all such names!' To satisfy her they opened the Calendar at another place, and the names which turned up were: Trefily, Dula, Varahasy. 'What an infliction!' said the mother. 'What names they all are! I really never beard such names. Varadat or Varuh would be bad enough, but Trefily and Varahasy!' On the next page there were Pavsikaky and Vahtisy. 'Well, I see,' said the mother, 'it is clear that it is his fate. Since that is how it is, he had better be called after his father. His father is Akaky, let the son be Akaky, too.'"

Although Gogol took the liberty of lumping together names from different pages of the Church Calendar, he quoted the names themselves accurately. People really had to cboose from these monstrous names.

Svetlana and other such Slavic names were not there. Maria however, was listed in nine different places, Anna in twelve, and Pavel in twenty. The full Church Calendar lists Ivan 170 times—almost every other day. Hence the number of Ivans in Russia. In fact the name is so frequent that people get the impression that it is an authentic Russian name. But it is not.

It originated in ancient Judea as Iohanan, God's Blessing. Later it gave rise to the Englisb name John, the French Jean, and Italian Giovanni, the Spanish Juan, the German Johann, the Finnish Yuhan, the Polish Jan, the Armenian Ovanes, etc. Russians made it Ioann, and subsequently modified that to Ivan.

Christianity came to Russia through Byzantium, in the late tenth century. So it brought Hebrew names —such as Ann, Mary, Simon and Gabriel (becoming Anna, Maria, Semyon, Gavriil). Greek names—like Zoe, Peter, Niketes, Akakios, Pausikakios, Triphyllios and Sosias (Zoya, Pyotr, Nikita, Akaky, Pavsikaky, Trefily, Sossy); and ancient Egyptian and Babylonian names borrowed by Byzantium herself.

In pre-Christian Russia children were sometimes given descriptive names like Kosoi (Cross-eyed), Ryaboi (Pockmarked), Bel (Fairbaired), or Buyan (Brawler). In other cases the name was an indication of the parents' attitude—Bogdan (God-given), Lyubim (Loved) or the melancholy Nelyub (Unloved). Sometimes parents took a plain, no-nonsense line and simply labelled their children according to order of appearance—Pervusha, Vtorak, Tretyak, Chetvertoi, etc (First, Second, Third, Fourth). Others fancied animal names, and so many children were named Volk (Wolf), Zayats (Hare), Solovei (Nightingale) and so on.

There are parallels in other languages. The Romans also ran short of imagination at times and resorted to numbers. Sextus meant the sixth, Octavius the eighth. Quintus Curtius was the fifth child of the Short family, and Septimius Severus the seventh of the Sterns.

Cecilia, a graceful-sounding name, meant someone who was almost blind, while Claudia was lame.

Xantippe and Xanthe were Greek names for red-heads. Akakios and Pausikakios were fine moral characters—"Innocent" and "Kill-Evil". Apollo was not given to someone because he had a godlike physique—it meant destroyer.

The German names Wolfgang and even Rudolf come from the old German "Wolf". The modern Bulgarian Vylko and tbe Serbian Vuk come from the old Slavic root with the same meaning.

Pre-Christian Russian noblemen gave their offspring sucb aristocratic names as Vladimir—owner of the world, Vsevolod—owner of everything, Svyatoslav—saintly, glorious. Izyaslav came from the word for capture, Pereyaslav from take over! Yaroslav was audacious, Mstislav wanted revenge.

Officially Russia embraced Christianity in 988 A.D. The new religion was spread with fervour and witb force, as were the new Christian names. But it is surprising how obstinate people can be. A scbolar wbo made a special study of manuscripts relating to as late as the thirteenth century found mention of only ten people up to that time who stuck consistently to their Christian names —and they were from the most prominent families. There were many among the nobility, too, who were known by hoth their Christian name and an old Slavic name.

Eventually, however, the old names were pushed right out of the picture. Research has shown that by the mid-nineteenth century there were at least a thousand imported names to every twelve of Russian origin in use in Russia.

On many occasions in history the abolition of a stupid but firmly established practice has aroused a reaction as stupid as the practice itself. That happened after the Revolution in October 1917, when the disestahlishment of the Church led to the abandonment of many of the old Christian names.

Enjoying their newly won freedom of choice, some parents invented new names. Mikhail and Olga would call their son Miol and their daughter Miolina. There appeared names like Ikki (the abbreviation for Executive Committee of the Communist International), Roblen (born to be a Leninist), Remizan (world revolution has started), Revdit (child of the revolution), Lonkerik (initials of Lenin, October Revolution, Industrialization, Electrification, "Radiofication", Communism). Some names were appallingly ugly, like Tsas (Central Medical Supplies Ware-

house), Glasp (Alcohol Industry Administration), or Raytia (district printshop)!

Slightly more fortunate children were given the names of trees or flowers, such as Dub (Oak), Beryoza (Birch), Gvozdika (Carnation), or Siren (Lilac). Others had to put up with the chemical elements—Radium, Vanadium, Iridium, Ruthenium, or such minerals as Granite or Ruby. Some got geographical names like Altai, Himalaya, Kazbek, Ararat, Volga and Amur, or, if their parents had a mathematical bent, Mediana, Radiana, Hypotenuse, Algeborina.

Some parents showed their enthusiasm about industrialization by giving such names as Tractor, Turbine, and Combine. Then there were double-barrelled, even triple-barrelled names like Belaya Noch (White Nights), Artilleryiskaya Academiya (Artillery Academy), Serp i Molot (Hammer and Sickle), Jean-Paul Marat, Veliky Rabochy (Great Worker), and even the marathon Tsvet Vishnevogo Dereva v Maye (The Blossom of the Cherry Tree in May).

But there is nothing new under the sun. Similar names appeared in France after the Revolution in 1789. From September 20, 1792, the clergy ceased to have control over children's names, and the imaginations of emancipated parents were soon running riot.

One provincial family went so far as to change its surname—to Milleseptcentquatrevingttreize (1793). It has gone down to posterity because of an obituary notice in a local paper, sorrowfully announcing to friends and relatives that Juin Milleseptcentquatrevingttreize (June 1793) had passed away on May 27, 1902. Two other brothers were called Mai (May) and Juillet (July).

The now widespread Russian surname, Oktyabrsky (October) originated in a similar way. It was adopted to commemorate the Revolution of October 1917, popularly known in the USSR as Great October.

Other nations can be just as eccentric when it comes to names. A Detroit family called its sons Stickney One, Stickney Two and Stickney Three, and their daughters Stickney the First, Stickney the Second and Stickney the Third.

The longest name of all seems to have been Leopodotemachoselachogaleookranioleipsanotriumupotrimmatosifioparaomelitokataketslummenokichlyeipkossufofattoperisteralektruonop. It is supposed to have belonged to the chief of a nineteenth century Indian tribe in Wisconsin.

* * * *

NEW RUSSIAN DICTIONARY

Compilation of a 17-volume dictionary of the modern Russian language, began in 1941, has been completed. The new dictionary contains 120,480 words.

CITY IN A BOWL

From the newspaper
SOVETSKAYA ROSSIYA

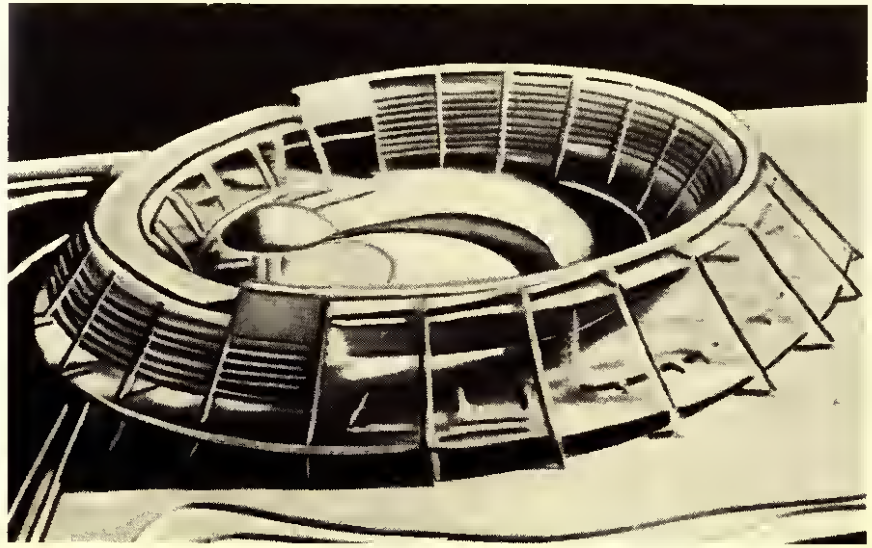
The model of a bowl-like structure is not a design for a stadium, but for a port-city of roughly 4,000 inhabitants. It is to be erected on the coast of the Arctic Ocean, where the winter is nine months long, and the soil is in the grip of permafrost. It was designed by E. Verner, V. Tankayan and Z. Dyakonova, architects at the Zonal Research and Design Institute in Leningrad.

The town has no streets, squares, or separate houses. It lies entirely under a cement roof and has walls of metal and glass. The town, together with an ever-green orchard and a micro-climate of its own, is encased in a single shell.

What is the point of having a town in the form of a stadium? In the Arctic, where there is no sun for long stretches of time, the solar rays must be utilized to the full during the polar day. The circular arrangement makes it possible to have all the residential buildings face south, so keeping the sun in the flats all day.

The basic structure of the port is a long wharf—a one-storey building with hatches in the roof. It is connected with the town by a covered street, a passage-way for pedestrians and electric-powered vehicles.

The model of the port was on show at Expo-67 in Montreal.



"Is it not monstrous, that this player here,
But in a fiction, in a dream of passion,
Could force his soul so to his conceit,
That from her working, all his visage wann'd;
Tears in his eyes, distraction in his aspect,
A broken voice, and his whole function suiting,
With forms to his conceit? . . . .
(Hamlet, SHAKESPEARE)

THE RUSSIAN HAMLET

from the magazines MOSKVA and TEATRALNAYA ZHIZN

What is so unusual about Innokenti Smoktunovsky, the actor who made such an impression in the screen version of Hamlet? There is nothing particularly striking about his appearance. He is not very tall or handsome. His walk is hardly that of a mannequin. He has rather stooped shoulders. In short, be is pretty much like the rest of us. If you passed him in the street, you probably would not stop to take a second look at him. But you have only to see him on the screen or stage once to feel his remarkable power.

In his first film, *The Soldiers,* he showed himself to be a sensitive actor, exceptionally intellectual and keenly aware of the spirit of our time.

"Exceptionally intellectual" may suggest a cultured family background, old and well-stocked libraries, a knowledge of languages, collections of paintings, a taste for the fine arts passed on from generation to generation. Smoktunovsky had none of these.

He was the son of a porter in Krasnoyarsk (Siberia), and one of six children. Life was not easy for anyone in the family, and the small comforts it did enjoy disappeared when the father left for the front during the Second World War.

Smoktunovsky's father was a big man, tall and broad-shouldered. As young Smoktunovsky watched him march away down the street with a column of soldiers, he could not help feeling that his father would be killed—it would be so easy for a sniper to spot him.

Unhappily the son's fears were confirmed. The eldest child, Smoktunovsky left school when he was in his last year to help his family.

Soon he himself was caught up in the war. He served in both the army and the navy. Once he was captured and escaped. He wandered in the woods, alone and wounded, until he came to a small Ukrainian village. It was probably here that he learned the true meaning of human kindness, when the villagers risked their own lives to help him.

With a partisan detachment he crossed the front line and the war eventually took him on the road to Berlin. . . .

When the war ended he was twenty. Back in Krasnoyarsk with only the "university of war" behind him, he had to start thinking about a career.

He had no clear idea what he wanted, and there was no one to

advise him. At first he thought of entering the Forestry Institute, but someone from his school drama group told him about a studio the Krasnoyarsk Theatre was organizing. Smoktunovsky immediately signed up for the studio. But he didn't get along with his fellow actors, who thought be was arrogant ("not entirely untrue," Smoktunovsky later recalled). He left without learning a thing about acting.

After this unhappy experience he took up one job after another, until be met the director of the Norilsk Theatre, who had come to Krasnoyarsk to recruit actors for his company. Smoktunovsky went to the Far-North city of Norilsk.

In those days the Norilsk theatre company was a mixed bunch of professionals, semi-professionals and amateurs, but it gave Smoktunovsky his first lessons in the art of acting. From Norilsk he did the round of provincial cities—Makhachkala, Grozny, Stalingrad—still feeling that his latent talent was not developing as it should. What successes he did bave only increased his sense of frustration. Finally he set out for Moscow.

In the capital he seemed to have arrived at a dead-end. He tried everywhere but only one theatre, the Lenin Komsomol, offered him occasional roles. His interviews with the management's secretaries were painful.

"What do you want?" the secretary would ask suspiciously, noting his shabby suit and lack of assurance.

"I would like to see the director."

"What for?"

"To get a job."

"We don't need any electricians."

"I am an actor."

Innokenti Smoktunovsky and Roza Sirota, who directed The Idiot, *work on his role of Prince Myshkin in the play.*

"We have even less need for actors."

Looking hack, Smoktunovsky gives this explanation for the cold reception he got in the theatre world. "At that time I had just ahout lost helief in myself. I must have looked like a failure, and a pretty wretched one."

But soon the "failure" was to achieve fame as Prince Myshkin in the stage version of Dostoevsky's *The Idiot.*

The turning point came with Smoktunovsky's performance in Bill-Belotserkovsky's screen version of *The Storm* in which he played the role of the old composer. His partner was Lehedev, an actor from the Gorky Theatre in Leningrad.

Back in the dressing room after the filming. Lehedev watched with increasing wonder as Smoktunovsky removed his make-up. Experienced actor though he was, he had never suspected his partner of heing so young.

"You ought to play Myshkin," Lebedev said suddenly.

By a coincidence Georgi Tovstonogov, the Chief Director of the Gorky Theatre, saw Smoktunovsky in *The Soldiers* and said he had the eyes of Myshkin.

A few months later the three met in Leningrad to work on *The Idiot.* Smoktunovsky played Myshkin, Lehedev played Rogozhin and Tovstonogov was the director.

Smoktunovsky's performance was not only unusual; it was unexpected. He seemed to do almost nothing on the stage, and yet he created an image that was haunting and unforgettahle.

One particularly remembers his eyes, which are filled with a sense of trust, perplexity, and pain, and his hands, sensitive, nervous, and as helpless as his soul. But in this helplessness one feels at the same time a great strength. It was the strength not so much of character or will as of an open and generous heart, of belief in the nohility and spiritual integrity of everyone he met.

Word of Smoktunovsky's Myshkin hegan to spread. In 1958 theatre lovers made pilgrimages to Leningrad to see his performance, and they were rarely disappointed. In a few weeks Smoktunovsky hecame famous.

One of his outstanding performances is in the film *Leap Year*, in which he plays the role of the wastrel Kupriyanov. It is a perfect study in weak-willed cynicism, hut somewhere underneath one still feels the heart that could hlossom if only it were given the chance, particularly in the final close-up. In those eyes, filled with shame and sorrow, one also detects a longing to recover those feelings of which Kupriyanov has only now come to know the value.

In another film, *Nine Days in One Year,* he again showed his ahility to involve the audience in a gradual hut penetrating analysis of character. Even in a far less successful film—the screen version of Rimsky-Korsakov's opera *Mozart and Salieri*—Smoktunovsky, as Mozart, managed hy the same means to convey something of the living soul of the great composer.

It is easy to say now that the parts Smoktunovsky had played led naturally to Hamlet. Grigori Kozintsev, the director of the Soviet screen version, had to he certain of it from the start, and he was. He had had douhts ahout casting other roles, hut there was not the least hesitation ahout the part of Hamlet: he wanted Smoktunovsky.

For nearly four centuries, on stages throughout the world, the Prince of Denmark has heen portrayed as strong or weak, gay or revengeful, suffering or merely philosophizing ahout suffering, emotional or intellectual. And as time passes, it hecomes more and more difficult for an actor to achieve an original interpretation of the role, hut Smoktunovsky succeeds in doing this. Without heing superficially modern, his Hamlet unmistakahly catches the spirit of the mid-20th-century.

This is what he himself says ahout his performance:

"When I was preparing for the first rehearsals, I surrounded myself with hooks of all sorts and sizes hy famous and not-so-famous Hamlet scholars, hoping to find in them explanations and interpretations that would help me in my work. Now I don't want to he misunderstood. I am not against literary and theatrical research. But the fact is that when I was finally left alone with the play I suddenly understood: Shakespeare does not need someone else to explain his works or to think out his thoughts for him. As the saying goes, 'May God give us strength to reach his level.' And there is one other point I discovered: the secret of Hamlet's complexity, his hrilliant mind, his perceptiveness, humanity, and spiritual richness lies in a wonderful simplicity.

"Having realized this, I decided that my main task was to create a Hamlet that could be understood hy the hlind, deaf, and dumh, hy those who grew up in cities and those who lived on remote islands and had never seen an automohile.

"What I hoped to do was to convey Hamlet's complexity through his simplicity.

"The selection of means of expression was all-important, and my sole criterion was taste. No flourishes and startling innovations for me. They would only take me away from Shakespeare. With Shakespeare it is a matter of shifting certain emotional stresses and even this must be done with moderation.

"Every actor who plays Hamlet

continued on page 44

"Oh from this time forth, my thoughts be bloody, or be nothing worth!"

Innokenti Smoktunovsky in his legendary role as Prince Myshkin in The Idiot. *An impressive, highly moving performance, a highly personal experience for those who have seen it—like a meeting with someone completely out of the common run, with overpowering charm and a tragic destiny.*

tries to bring out some special feature of his character. To me Hamlet is above all a figbter for what is buman in man, an enemy of the bestial, a champion of intellect and reason as the moving force of the universe.

"What is my interpretation of Hamlet? One could talk about it for ever, because tbe range of Shakespeare's mind has not yet been fully comprehended. In different epochs, in different spberes of life, in different people, I find Hamlet's fierce urge to live, and with it the dedication, intellectual gifts, and integrity that it generates. I bave not yet expended all that I bave thought and dreamed about Hamlet. I shall do everything I can to play this role on the stage."

In Smoktunovsky the man, as in the actor, there is much that is surprising and paradoxical. I do not know if there is such a thing as a talented mind, but the phrase would describe Smoktunovsky well. He often overlooks many fairly obvious things, but he is able to penetrate the most complex phenomena. He has fine aesthetic taste and an infallible sense of contemporaneity in art. He feels more than he knows, but there is nothing vague about his feelings. In the end he is always able to explain and analyse them.

Not in the least restricted to any specific type of character, Smoktunovsky played the comedy role of an insurance agent in his last film Look Out, Cars!

Two stars meet as Smoktunovsky gets Benny Goodman's autograph.

When be was working on Hamlet, Smoktunovsky took up the study of English. Over his desk hung a piece of paper marked with coloured pencils. It looked like a diagram or a map, but it was actually a table of English grammar which Smoktunovsky had made up himself. Not many people could understand it, but it helped Smoktunovsky. In a way, his methods of understanding the world, literature, and art are like this table. He always has his own way of going about things, his own way of learning, and what he learns eventually finds its way into his art, which he prefers to call "work". The word suits him well, whereas words like "creativity" embarrass him, just as a new overcoat or suit makes him uncomfortable. Smoktunovsky is not simple, but simplicity is the basis of his art.

As Mozart in the film Mozart and Salieri, *in which Smoktunovsky manages to convey something of the spirit of the great composer.*

Grigori Kozintsev, the film director, explains what he wants of Smoktunovsky in this scene from Hamlet.

A Visit to Innokenti Smoktunovsky

from the magazine SOVETSKIY EKRAN

"What is the part you would most like to play?

"Pushkin. Here is a great personality. I would like to play the mature Pushkin, when his gifts were in full flower. I would like to show that Pushkin is simple and at the same time a genius.

"As for personal taste, I prefer playing the kindly sort of person, not the evil, vicious sort."

"Who is your favourite character?"

"The Czech resistance leader Julius Fučik. A wonderful and immortal man. I feel close to him because of his lightness in the good sense of the word. He lived lightheartedly, because he loved life. I do not understand people who whimper and complain about difficulties. In my opinion, life is always wonderful, even when difficult."

"Who are your favourite writers?"

"Dostoevsky, Tolstoi, also Shakespeare, Burns, Montaigne, Hemingway."

"Which of the leading directors would you like to work with?"

"Efros and Tovstonogov. Efros is going to film Chekhov's *Seagull* and has asked me to play the part of Treplev. I shall do so with great pleasure."

"Looking back, what do you think about Hamlet?"

"Hamlet taught me a lot, both as a man and as an actor. There are many scenes in the film I am not satisfied with. But I think I succeeded in making him a living character."

"Was the filming difficult?"

"No. Film-making is my life. And can one say that it is difficult to live? If someone asked me if it was difficult *not* to make films, I would say yes, very difficult. But for me to make films is to live. Both difficult and easy."

"How long did you work on Hamlet?"

"Your readers probably know the story about the painter and the rich client who was indignant at paying so much for a mere two hours' work. 'I worked on this painting all my life, plus two hours,' said the painter. I like this answer. And I say that I worked on my Hamlet all my life plus one year."

"In general, how do you go about interpreting a role? Do you begin with intellectual observation or with intuitive understanding of some points that seem important to you?"

"Both are important. Actually you are observing things all the time and storing them up in your mind. As for intuition, it stimulates observation. Very often discoveries turn up quite unexpectedly, as in the case of Myshkin. During rehearsal I felt I was on the right track. And yet somehow things were falling apart. I couldn't tie up all the things I had thought and understood about my hero. Everybody around me, the director, my partners, was dissatisfied, I was near desperation. Then one day, when I was at the Lenfilm Studios, people were running about in the corridor, calling to one another, and it was Bedlam. But in the midst of all the noise and bustle a man was standing quietly looking about him. He made me realize that I must calm down and go on quietly with my work."

"What is your greatest difficulty?"

"Shyness. When I start working on anything, I always make a great effort to overcome this feeling. That's why I try to establish good relations with the people at work. When I feel that people understand me and are well disposed towards me, it helps."

"What do you like to do most when you are alone?"

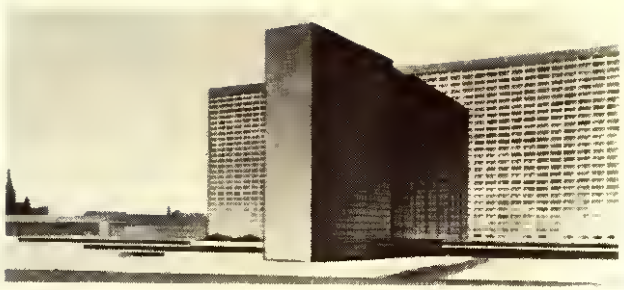
"I love to wander through the streets of Leningrad."

"Will you tell us a little about your personal life?"

"I am married. I have a son, named Philip, and a daughter, Maria. They are still small. Philip is ten, Maria, two. I am not only a film actor, but also a film fan."

"What are your favourite words?"

"My favourite word is: wonderful. To wonder is an excellent thing. It means that you are alive."



HOSPITAL OF THE FUTURE

by Mikhail TSENTSIPER, M.D. *from PRAVDA*

Until comparatively recently, the general practitioner treated all illnesses, so patients who suffered from different diseases were gathered in large wards in one hospital building. The evolution of knowledge divided medicine into many narrow fields: new separate or departmentalized hospitals were required. Today the process of specialization has gone so far that human diseases are carved up between more than 100 specialists.

In such conditions the only way to assemble the different medical specialities and modern methods of examination at the patient's bedside was to bring them all under one roof again. The progress of medicine has led to a reintegration of its parts, but on a new basis. All over the world there is a trend toward building large integrated hospitals.

Before 1970 Moscow will have a new hospital with 3,000 beds. Its main building will house 13 clinics specializing in the basic areas of medicine. Patients will be able to undergo thorough examination and treatment.

Attached to Moscow's Second Medical College, the hospital will provide training facilities for 1,500 students at a time.

The hospital will have the most up-to-date equipment. In the surgical building there will be 50 operating theatres, most of them glass domed so that students can observe operations. Colour TV will show details of surgical work which no amount of watching in the operating room can provide. Special instruments, through pick-ups on the patient's body, will draw diagrams and figures on paper and screens characterizing the patient's condition during the operation—pulse, respiration, action currents of the heart and the brain, and other indications.

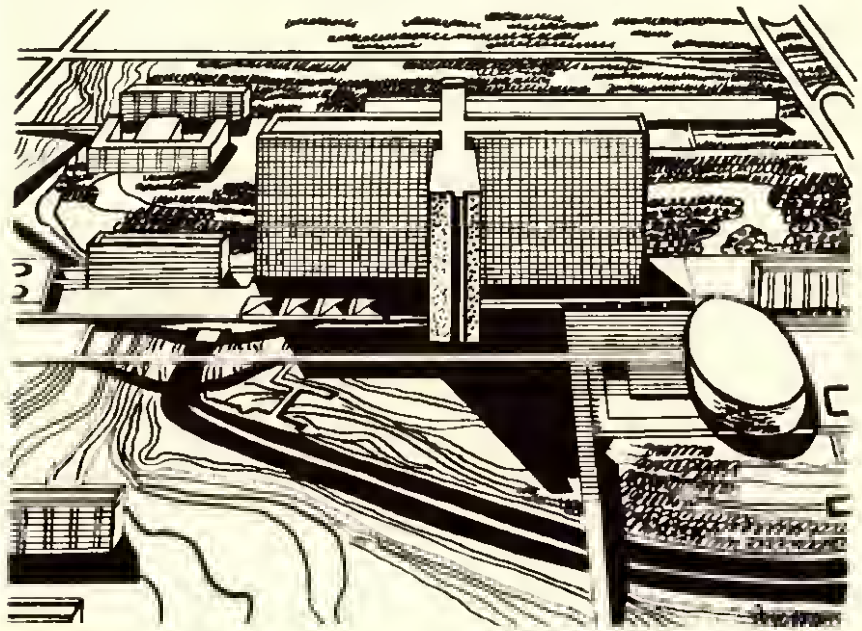
No rooms for the storage of instruments and sterilization equipment will be visible. Whatever is needed for the operation, ranging from the surgeon's gowns to the instruments, will be delivered by high-speed lifts and along pneumatic channels by the centralized surgical service, which will have available 300 or so scalpels, thousands of needles, and large stocks of materials and equipment of all kinds.

Tracing systems in the post-operational wards will register minute changes in the patients' condition. Any dangerous signs will be reported to the doctors immediately.

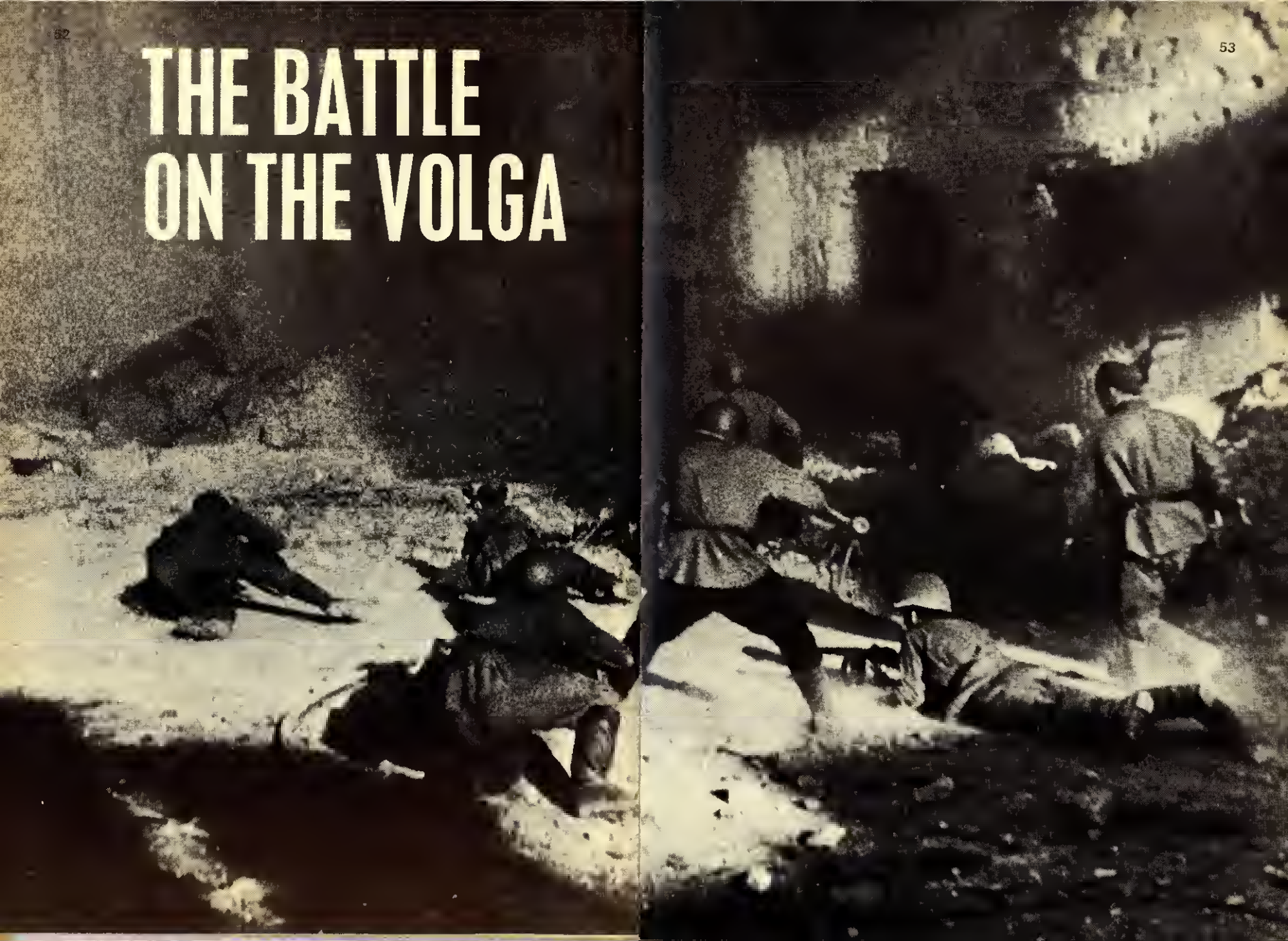
A large centralized X-ray department and offshoots in the clinics will make complex investigation possible. Laboratories for clinical, biochemical and physiological analysis will have automated and semi-automated equipment.

In addition to the hospital building there will be a maternity home, a polyclinic and a children's hospital. Close by will be the college training buildings, homes of the hospital staff and college professors, and a student hostel. A vast park with lakes and sports facilities will form part of the complex.

In a few years this huge medical centre—it will be the largest in the Soviet Union—will stand by the highway linking the capital with Vnukovo Airport. It is being designed by the Moscow Standard and Experimental City Planning Research Institute under P. A. Alexandrov.



THE BATTLE ON THE VOLGA



Stalingrad, February 1943

There are events in history that determine the fate of whole peoples and nations. Such was the battle of Stalingrad, 25 years ago. Many books and articles have been written about it from different standpoints and sometimes by people who fought on opposite sides. But whatever their position, the writers all agree that the battle on the Volga had a decisive effect on the outcome of the war with Nazi Germany.

In the following pages, we give excerpts from the writings of two participants in the battle who fought against one another.

THE STALINGRAD EPIC

by Marshal
Konstantin ROKOSSOVSKY

from the book
THE GREAT VICTORY
ON THE VOLGA

For six and a half months, from July 1942 to February 2, 1943, on the endless steppes of the Don and the Volga, the bloody battle continued to rage. Altogether over 2 million men, 26,000 artillery pieces and mortars, 2,000 tanks and up to 2,000 planes were used at various stages of tbe battle. In terms of duration, fierceness of the figbting, number of people engaged and amount of military equipment involved, this battle of the Second World War surpassed all preceding ones in recorded history.

The Stalingrad epic can be divided into two stages: tbe defence of the city, which lasted up to tbe middle of November 1942, and the offensive that ended in the encirclement and destruction of the Nazi Sixth Army.

The Germans had concentrated about 50 divisions at Stalingrad. The number of our men was one fifth of that. As it retreated, the Soviet army made great efforts to hold back the onslaughts of the enemy. After the Germans broke through into the city, long, exhausting street figbting began. Anyone who could hold a gun fought; they fought for every stone, every telegraph pole, every bit of wall that remained standing. One can sense something of the tenseness of the battle from the war communiques issued from the Headquarters of the Sixty-Second Army that defended Stalingrad.

September 13, 1942:

07.50—Fighting bas begun in the region of Mamai Hill and on tbe road to the railway station.

08.00—The railway station is in the hands of tbe enemy.

08.40—The station is in our hands.

09.40—The station has been recaptured by the enemy.

10.40—The enemy is in Pushkin Street, 600 metres from the Command Post of the Army.

11.00—About two enemy infantry regiments, supported by 30 tanks, are moving towards the House of Specialists on the Volga.

13.20—The railway station has been recaptured by our forces.

Thousands of tons of metal were hurled at the positions of both sides. Tbunderous gunfire, explosions, the screeching of shells, fresh outbreaks of fire—there was not a minute's let-up. The enemy pressed hard towards the Volga. At some points tbe battle was only a few score metres, and at some spots only a few steps, from the Volga.

The enemy was already looking forward to victory. Hitler and his generals said at that time:

"We have marched thousands of kilometres. We have reached Stalingrad, and we shall capture it. You can be certain of that."

"Soon the Russians will be finished."

"Stalingrad will be firmly in our hands."

"In two or three days Stalingrad will fall."

But the Soviet Command was concentrating fighting units on the flanks of the German army.

★ ★ ★

On November 19, 1942, the Soviet army took the offensive. On November 23 the enemy was encircled. In the "pot" were 330,000 soldiers and officers. One of Hitler's officers wrote in his diary:

"November 21. We are surrounded."

"November 29. Food supplies are running out."

"December 2. We have nothing left but snow. No food. We are bungry all the time."

"December 8. Things are getting worse. All the weak horses are being used for food. . ."

"December 26. Today I ate tbe cat."

The concluding operation was carried out by the Army of the Don Front, of which I was Commander. It was decided to split the surrounded enemy in two.

On January 8-9, 1943, truce envoys were sent to the German headquarters demanding their surrender. The first time the envoys were shot at. The second time they were received, but the Germans refused to surrender.

Stubborn fighting broke out again.

On January 31 Paulus and his staff were captured. A strange silence followed. The 330,000 strong enemy force was overcome.

★ ★ ★

In the Stalingrad battle total enemy losses amounted to one and a half million soldiers and officers killed, wounded or taken prisoner. This was more than a quarter of the entire body of German troops operating on the Eastern front.

After this defeat Hitler's military machine never regained its strength. The battle of Stalingrad changed the course of the Second World War.

In his message of congratulations on the victory on the Volga, U.S. President Franklin D. Roosevelt wrote: "The 162 days of epic battle for the city . . . and the decisive result which all Americans are celebrating today will remain one of the proudest chapters in this war of the people united against Nazism and its emulators."

And British Prime Minister Winston Churchill wrote:

"Pray accept my congratulations on tbe surrender of Field-Marshal Paulus and the end of the German Sixtb Army. This is indeed a wonderful achievement."

continued overleaf

TO THE FALLEN

One of a group of sculptures erected on Mamayev Hill in tribute to the heroes of the battle of Stalingrad. The sculptor was Yevgeni Vuchetich.

THE NOTES OF PAULUS'S AIDE

by Wilhelm ADAM
from the newspaper
LITERATURNAYA ROSSIYA

The General Suddenly Reported Sick

I was pacing my little room nervously, three steps forward, three steps back. I couldn't get that map with all its markings out of my mind. The red arrows indicating the advance of the Russians from the north and south haunted me. I could almost see them closing in at Kalach. My God! What would happen then! Would the panzers arrive in time to prevent the encirclement of the Sixth Army? What would the next few hours bring?

The answer came sooner than I expected. Paulus summoned me to his room. It was thick with tobacco smoke, and the ash tray on the table was overflowing with cigarette ends. Next to it stood an unfinished cup of black coffee. The Commander-in-Chief was lighting another cigarette.

"As you know, Adam, the 14th Armoured Division suffered heavy

losses in the defence fighting. The Russians have almost wiped out the artillery regiment of the Division. Now the Divisional Commander, General Bessler, has reported sick. Looks like his old beart trouble again—right now, too! He asked me to help get him sent back home. I agreed. I've no use for a commander who reports sick at a moment like this. He'd only be in tbe way."

"But it's desertion! I don't believe he's ill. He's just a coward, afraid of parting witb his precious life."

"That's the concern of the army operation group. I've sent them a report. General Bessler was in sucb a hurry that he'll soon be there."

Death Road

I was summoned by HQ Commander Major-General Schmidt.

"Adam, set up the Command Post in the new position."

I ordered the car to be got ready. On January 13, just before nine in the morning, I set out. We were still in control of a short stretch of highway. On it was an endless stream of retreating soldiers and before I had covered even one kilometre my car was filled witb wounded. Two stood on tbe running-board.

"Drive slower," I told tbe driver, who was afraid the springs might break under the load.

I decided to make a small detour to deliver the wounded to hospital. Tbougb my car was packed, we stopped to pick up one more wounded soldier. I had already noticed him from a distance. He was standing by the road, his blanket-wrapped arm raised in entreaty. As we approacbed I was struck by his child-like eyes, whicb expressed utter despair. Tears were running down his cheeks. I thought of my son and ordered the car to halt. The poor boy stumbled towards us with great difficulty.

"I beg you, sir," he said, "Take me to Stalingrad!"

I moved closer to the driver and sat tbe soldier next to me. The lad wasn't yet nineteen. His hands and feet were frostbitten. He bad been standing on the road for nearly an hour, but nobody had taken pity on him. He didn't know how to thank me and several times attempted to sbake my hand. To him Stalingrad meant safety and life.

I unloaded the wounded at the hospital in the western part of the city. The young fellow had to be carried in.

Tbe highway was covered with bodies. While walking to the city the wounded and sick would become exhausted, sit down on the road, fall asleep and freeze to death. No one removed the bodies. Tanks and trucks rode over tbem, rolling them into shapeless flat cakes. Drivers and passers-by looked upon them stupidly and with indifference. This stretch was called "Death Road".

Here also was the wreckage of bundreds of trucks, cars and buses that had been destroyed by bombs. Among them were wrecked tanks and artillery pieces. Here and there were blackened fragments of burned

Hitler's soldiers got to Stalingrad

homhers. Along the road countless numhers of undamaged cars stood motionless; they needed only one thing—fuel.

Meeting the Victors

January 31, 1943, 7 o'clock in the morning.

It was still dark, but day was dawning almost imperceptibly. Paulus was asleep. It was some time before I could break out of the maze of thoughts and strange dreams that depressed me so greatly. But I doo't think I remained in this state very long. I was going to get up quietly when someone koocked at the door. Paulus awoke and sat up. It was the HQ Commander. He handed the Colonel-General a piece of paper and said:

"Congratulations. The rank of Field-Marshal bas been conferred upon you. The dispatch came early this morning. It was the last one."

"One can't help feeling that it's an invitatioo to suicide. However, I am oot going to do tbem such a favour," said Paulus after reading the dispatch.

Schmidt continued:

"At the same time I must inform you that the Russians are at the door."

With these words he opened the door, and a Soviet general and his interpreter entered the room. The geoeral announced that we were his prisoners. I put my revolver on the tahle.

"Prepare yourself for departure. We shall he back for you at 9. You will go in your personal car," said the Soviet general through his interpreter. Then they left the room.

I had the official seal with me. I began my last official duty: I recorded Paulus's oew rank in his military document, stamped it with the seal, and then threw the seal into the glowing fire.

The main entrance to the cellar was closed and guarded hy Soviet soldiers. An officer, the head of the guards, allowed me and the driver to go out to get the car ready.

Climhing out of the cellar, I stood dombfounded.

Soviet and German soliders, who only a few hours before had been sbooting at one another, now stood quietly together in the yard. They were all armed, some with weapoos in their hands, others carrying them over their shoulders.

My God, what a contrast hetween the two sides! The German soldiers, ragged and in light coats, looked like ghosts, with hollow, unshaveo cheeks. The Red Army fighters looked fresh and wore warm winter uniforms. Iovoluntarily I remembered the chain of unhappy events that had kept me from sleeping so many nights.

The appearance of the Red Army soldiers seemed symbolic.

At 9 sharp the HQ Commader of the Sixty-Fourth Army arrived to take the Commander of the vanquished German Sixth Army and its staff to the rear.

The march towards the Volga had eoded.

The Man Who Remembered EVERYTHING

by Alexander LURIA,
Member of the USSR Academy of Pedagogical Sciences

from the magazine NAUKA I ZHIZN

One day in 1926 a young reporter from a Moscow paper came to the psychology laboratory where I was working and said: "My name is Shereshevsky. My editor sent me. He wants some informatioo about my special powers of memory—if I have any, that is. . ."

Tbe day hefore the editor had giveo the reporter some complicated instructions, and was irked by the fact that he took no ootes. "Why waste good paper?" the young man had said, and repeated the editor's lengthy orders word for word.

Alexei Leontiev, now a professor and Lenio Prize winner, and I, began testing the young man's memory. We found that he remembered series and tahles of one hundred digits and more, incredihle combinations of words in languages he did not know, and even long series of arhitrary alternations of "red" aod "hlue". It did not matter whether he heard or saw them, or even whether there was any meaning for him in something (say, a formula he did not understand).

I had Sheresbevsky under observation for 30 years, and kept a record of all our experiments. I discovered that there were no bounds to his memory, either in volume or time. I used to ask him—twenty years later—to recite a tahle of figures he had once heard. He would close his eyes and slowly trace imaginary lines in the air. He would say: "Wait a minute: you were wearing a grey suit, weren't you? I was sitting opposite you hy the window. . . Ah, there it is!" And he would reel off the whole thing without a mistake.

I got the impression that he was

reading an invisible page. He had eidetism—a type of visual memory —which enabled him to see the figures dictated as if written on a board or paper in his own clear hand. He also arranged them in columns of four to six digits in a row.

When memorizing words he saw himself walking down Pushkin or Gorky Street in Moscow, and he arranged in niches everything he heard on the way. When trying to recollect a series he would retrace his steps and read off the inscriptions in the niches.

Hence the curious explanations he used to give when he did forget a word. It turned out that this happened through no flaw of memory, but through lack of attention or bad lighting. He made mistakes only when he placed an object in his mind's eye in such a way that it blended with the background (say a white egg against a white wall), or when it was badly lit. "You see," he would say, "I failed to notice it because the light of the street lamp was not strong enough."

He had what is called synesthesia, meaning that for him sound had colour and taste. He would say to someone at the laboratory: "What a yellow, crumbly voice you have!" He sometimes thought of the sound "ah" as a white surface or line; "e" as a sharp point tapering off into the distance; and "eh" as a convex line. He used to say that he felt a word would have a different taste and shape if he gave it another sound. One day as we were returning from the laboratory of the prominent Soviet physiologist, Leon Orbeli, I asked him whether he could find his way back. "Of course," he answered, "this is such a salty fence."

But this synesthesia could also hamper memory. If someone coughed when Shereshevsky was taking down dictation, his images were blotted out by spots on his "field of vision". One day he failed to come up right away with a Latin word he did not know: "It's so dark; I put it by the wall, and had to use a lamp to see what it was."

Let me add that for a long time he was sincerely convinced that everyone had the same perception of the world as he did. However, his eidetism and synesthesia lent a curious character to his perceptions. He would go up to an ice-cream vendor, who would ask: "Vanilla or chocolate?" Later, he would say: "She has such a dirty voice, I see bits of coal sprinkled on the ice-cream. I couldn't eat the stuff."

Lunching in a restaurant he would remark: "The music must be there to improve the taste of the food." He would be put off his food by a suddden thumping on the roof, where repairs were under way.

Everyone has had the experience of discovering that an expected image does not quite coincide with the actual thing, but for Sheresbevsky this had disconcerting consequences. "I can't recognize a man," he would say, "if he turns out to be wearing a suit that doesn't suit the voice I heard on the phone."

Because of his visual perceptions, he often failed to understand various little things. We are not much put out by the figurative meaning of words but he was: "When you say the 'captain's bridge', I actually see the captain standing on a bridge, just like the one across the river here." This hypertrophied imagery hampered his understanding of a story. Say it went like this: "The man stood with his back against a tree . . ."—that would take Shereshevsky right into the woods—". . . looking into the shop-window" —Shereshevsky would have to start all over again, as soon as he was out of the wood.

To prevent this rapid fragmentation of the text into pictures he would try to read faster, but he still had to go over the text again and again, because the pictures were still there.

When he came across the same kind of description in different stories, say, "porch", "verandah", or "weeping willow", his mind would leap back to an earlier situation. He once started reading Gogol's *Landowners of Yesterday* and found himself in the midst of his *Dead Souls*. From this you will gather that Shereshevsky had special difficulty in dealing with such concepts as "infinity", "mutually penetrating opposites", etc.

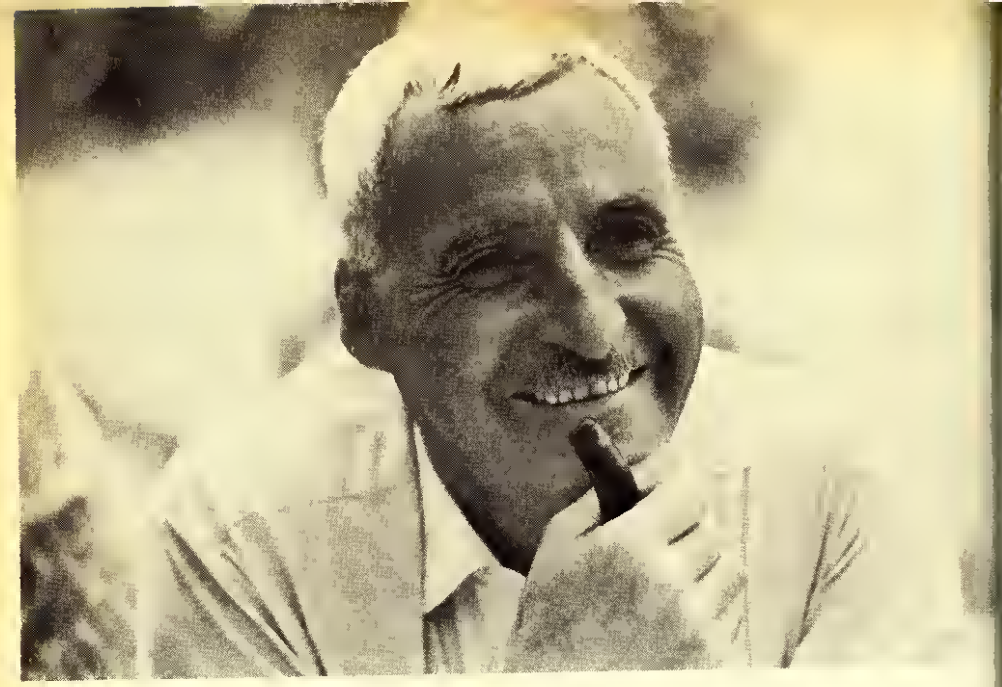
But he was amazingly quick at putting his finger on any inaccuracies in the text. Millions have read Chekhov's stories, but it was Shereshevsky who first noticed that in his *Chameleon* the hero is first wearing a great-coat and ends up in an ordinary coat; that in *Fat and Thin* the boy is first wearing a hat and at the end of the story he takes off a cap. Sheresbevsky couldn't help noticing that sort of thing: his vision was so vivid.

Naturally, all this had an effect on his behaviour. "I have often found that if I 'see' a milk jug on the left-hand side of the table, when it isn't there, I fail to see it on the right-hand side, where it actually is; this makes me confused and dull-witted." When moving to a new flat he could imagine that a double of his was doing it, so that he himself didn't have to do anything, because the moving was over. The double moved on, and he stayed home. People said: "Snap out of it!" His life ran somewhere midway between reality and fantasy.

He could change the temperature of his hands by imagining that one was lying on a stove and the other on a piece of ice: the temperature of the one would go up by as much as 2° and that of the other would drop by 1.5°. He could send his heart racing by imagining that he was trying to catch a tram; he would feel no pain in the dentist's chair by imagining that "the other" was there instead of him, and was having "his" tooth out. He was then a split personality.

He himself defined his thinking as going forward "in the mind's eye".

Detailed observation of Shereshevsky's remarkable mind was extremely fruitful, and added a great deal to our knowledge of the process of thinking and the structure of the psyche.



KONSTANTIN SIMONOV'S POETRY

This article was specially written for Sputnik *by the literary critic Lazar LAZAREV*

Foreign readers may know Konstantin Simonov as the novelist who wrote *Days and Nights* and *The Living and the Dead.*

In his own country, Simonov is recognized as a successful novelist and playwright. But he was first known as a poet, and is as famous for his poetry as for his prose.

That this is not so abroad is understandable, for translated verse seldom shares the success of the original.

Simonov started writing poetry in the mid-thirties, and by the time war came several volumes of his verse had been acclaimed by both readers and critics. Yet no one expected the rapid rise to fame that followed soon afterwards.

In 1941 Simonov became a war correspondent, sharing all the hardships of the frontline soldier. Instead of poetry he wrote dispatches and articles about men at war. Poetry, it seemed, was the last thing anyone wanted.

From the front Simonov wrote several poetic messages to the woman he loved. They were not intended for publication. In December 1941, while on a few days' visit to Moscow—then a frontline city—he called at the offices of the newspaper *Pravda.* Asked by the editor if he had any poems he could submit, Simonov recalls that he replied: "I have nothing that would suit you."

Then, as a matter of courtesy, he handed over one of his lyrical poems. It was called *Wait For Me* [a translation was published in *Sputnik,* No. 11, 1967] *Pravda* printed the poem, and it won Simonov millions of admirers in a few days.

People sought out that issue of *Pravda* in the possession of lucky friends and relatives so that they could copy out the poem. It was sent from the front to the rear, and from home to the front, and memorized by hundreds of thousands. With striking accuracy and artistic force it conveyed what Soviet citizens, torn apart by a terrible war, were feeling, dreaming of, longing for, and believing in. From that time on, whatever Simonov wrote was received with great interest and warmth by a tremendous readership.

The four poems printed below give a hint of Simonov's powers as a poet.

There is one point I should like to make. Though a lyrical poet, Simonov has the rare gift of seeing the world in colour, in concrete visual detail, and in his poetry he strives for a dynamic picture of reality.

NATIVE LAND

With fingers touching three great oceans,
Spangled with cities like starry skies,
Meshed by meridians to measure motions,
Vast, proud, unconquerable she lies.

But, in that hour of desperation
When, fingers clutching the last grenade,
A lurid flash of recollection
Reveals our treasures, born and made.

It is not the vastness and the splendour
We remember. It's the wildwood
Endeared to us in childhood, it's the tender
Vision of a brooklet paved with sand.

A sweep of sward beneath three birches,
A road that dips into a wood,
The creaking of the ferry when it lurches,
Willows bending to kiss the flood.

Here we happily began our being,
This is the country of our birth.
Sufficient ground it was to give us
Knowledge of most good things of earth.

We can endure tempestuous weather,
Brave cold and hunger, even death,

But those three birches we will never
Surrender—no, not while we draw breath.

TWENTY YEARS AFTER

The sunset faded, fires subsided,
All night, as if a natural thing—
So natural that our ears denied it—
The guns kept up their bellowing.

And there below, 'twixt boot and sabre,
A little girl with cornflower eyes,
Stood less than stirrup-high, small neighbour
Looking up in hurt surprise.

I lifted her and put her in the saddle,
She did not know, no more did I,
What happened to her home and mother
That day the fires blacked out the sky.

"What is it, child?" I asked her gently,
We did not know each other's names;
Her eyes examined me intently,
Blue with the blueness of the flames.

Like a quivering woodland thing she nestled
Into the shaggy cape I wore;
As we rode along I bravely wrestled
With feelings never felt before.

On some still evening, blossoms faintly
Flavouring the air with scents of May,
A man with whom I am unacquainted,
Who never yet has come my way,

Will say, noting some deep distraction
In the eyes of one to me unknown:
"What is it darling?"—not exaction,
But desire to make her pain his own.

She starts as from an unexpected
Blow, her eyes are dim with tears,
And in their blueness is reflected
The conflagrations of those years.

"It's nothing, dear," but men on horses
Are riding, riding through her mind,
Cavalry men on cavalry horses,
Riding to the task assigned.

One stoops to lift her up beside him
And holds her with a rugged arm.
The sun has set, the fires subsided,
But not the horror, not the harm.

KARETNY LANE

What of warmth can wartime engender?
A bleakness on everything lies.
Shall I write you a letter unwontedly tender?
Will it come as a wanted surprise?

Rarely with you did my sentiments soften,
Mine was the rigorous school.
Too bitter the lessons I learned and too often:
An eye for an eye was my rule.

But I see you tonight without blemish or fetter,
As if, in the presence of death,
I took up my pen for this ultimate letter
And sealed it with ultimate breath.

I hear the sad strains of a Russian song,
But of something quite different it sings;
I would see you tonight as I haven't for long—
Flying to me as on wings.

As yet unembraced, unkissed, unsoiled,
Unavowed as yet, not a wife,
Unharrassed as yet, and as yet unspoiled
By the woes of a woman's life.

We were neighbours then. I left from Karetny
Five minutes later than you,
So I got to the spot where always you met me
Not on the dot, but five after two.

Five minutes late, five minutes late,
Day after day, on and on.
The five minutes grew like a river in spate,
Ten years and more was the sum.

Like a grown-up you learned to love me and hate me,
But I would give all of those years
If again, as then, you would sigh and await me,
There on Karetny, battling tears.

I would shield you tonight; I would not have you lonely
Or wronged by another—how strange!
Can it be my own loneliness, loneliness only
Makes me so soft for a change?

* * *

If God Almighty in His divinity
Would let me, when I die,
Select and take from earth's infinity
Of delights, a sky supply.

I would choose as a mate no cloying, languishing
Lass, who would meekly obey;
I would choose the one who had caused such anguishing
In an earlier earthlier day.

A viper, a viper, vain and intractable,
But mine, if not for long;
Wilful, wanton, perverse, impractical,
Defiant of right and wrong.

Few, I daresay, will have chosen heavenly
Mates as shrewish as mine.
The saints be forgiven seven times seventy
For gazing at lips like wine:

I would take to the sky my love of distances
And the pain that parting brings,
The remembered pain of poignant instances
When body to body clings.

I would want to go off to a battle perilous
So that anxiously she would wait,
And not bestow on a coward scurrilous
The favours she owes to her mate.

I would certainly take a faithful friend with me
To sit with and drink with betimes,
I would just as certainly take an enemy
To pummel and punch for his crimes.

Indeed, indeed, when I come to think of it,
Nothing of earth would I lose;
Here is yawning death, and me on the brink of it
Unable, oh quite! to choose.

I would take even death, our earthly mortality,
Up to the realms above;
And negative things, like rage and rascality,
Balanced by pity and love.

For such ungrateful, insatiable greediness
God the Almighty, no doubt,
Would slam the gates in my face with all speediness,
Happily shutting me out.

* * *

Translated from the Russian by Margaret Wettlin

The Soviet Army

1918

Soviet troops in 1917

The Soviet Army celebrates its 50th anniversary on February 23 of this year.

-1968

Soviet troops 50 years later

In the Civil War, machine-gun carts were the main striking force

In 1950, it is rockets

Peace has always been the aim of Soviet Foreign policy. Diplomacy plays an important rôle in attaining this aim. In fifty years Soviet diplomacy has travelled a road leading from its struggle to end World War I to the efforts to prevent World War III.

From Swords to Peace

(Soviet diplomacy takes its first steps)

by Yevgeni GNEDIN

condensed from the magazine NOVY MIR

* * *

Starting from Scratch

I was still a student when in the very early 'twenties I was put on the payroll of the People's Commissariat of Foreign Affairs. No one asked me to present a university diploma—either then, or two weeks later, when I became an Assistant Head of Department, or two years later when I was put in charge of the commercial-political section. The question did not arise even a decade and a half later, when I was appointed to be Head of the Foreign Commissariat's Press Department.

In saying all this it is not my intention simply to inform the reader of my educational level. I want to show how Soviet diplomatic personnel were recruited in those early days. The one and only condition for employment at that time was—and had to be—complete trustworthiness. Diplomatic skill and techniques were to come later, picked up on the job.

In 1922, when the Foreign Commissariat's Moscow-based staff numbered six hundred, the widely varying background of the employees was easily discernible. In the passages and offices of the big grey building on the corner of Kuznetsky Most and what is today Dzerzhinsky Street one could encounter former sailors and workers from the Siemens-Schukkert Works in Petrograd and former Latvian Riflemen. (The Latvian Riflemen had been included in the task force which was ordered to occupy the Czar's Ministry of Foreign Affairs in the very first days of the Revolution. Some of them, led by Seaman Markin, had participated in the takeover of the secret archives of Czarist diplomacy.)

Among the newly recruited diplomats were former underground workers and political emigrés. These were seconded to the Commissariat of Foreign Affairs because they had travelled abroad, in Europe or America, and were therefore a priceless asset in all matters that called for a knowledge of life in various countries.

Civil War veterans who had fought in the Far East or in Central Asia now became experts in, and executors of, our policy of peace and friendship towards Oriental nations.

Already in action by the time I arrived were "older generation" international lawyers (the forty-year-olds). A rôle of mounting importance

was being played by younger men with a university education—but, for that matter, they too had already been on active service on the battlefields of the Civil War.

The only group in the Commissariat to continue their former activities almost unchanged, albeit in a new capacity, were the Soviet diplomatic couriers. Most of them were men who had engaged in dangerous and highly responsible Party work before the Revolution, and they continued their highly responsible and dangerous work after it.

The questions of state which the officials of the newly established diplomatic service had to cope with were new not just for the young recruits but for the older generation too. Many of these questions were new in the absolute sense of the word, since never before had anyone raised them—or, indeed, could they have done so. The young Soviet diplomats matured in an atmosphere which made innovation a very real necessity.

I am not trying to picture us all as being great men ruling the destinies of the state. Yet we really did have immense independence in our work. Then, at the grass roots of Soviet diplomacy, we were quite frequently called upon to make up our own laws because there were as yet no ready-made rules or procedures for what were fundamentally new circumstances.

Naturally enough, we did not come through without mistakes and even some absurd blunders. For instance, a special circular had to be issued saying the following: "The experience of the People's Commissariat of Foreign Affairs has shown that the Comrade Plenipotentiary Representatives responsible for the conclusion of international treaties with foreign states . . . have been keeping signed and authentic documents in the files of their missions . . . I request all Comrade Plenipotentiary Representatives to dispatch in future the original copies of all treaties concluded to the People's Commissariat of Foreign Affairs immediately upon signature . . . ."

I came across this circular of the People's Commissar of Foreign Affairs in an old copy of the *People's Commissariat of Foreign Affairs Bulletin* and I recalled how in 1922 we would sometimes receive texts of treaties that were veritable revelations for all of us.

Of course, these were extreme manifestations of the independence of diplomatic representatives. However, and this is something I want to emphasize, when such extremes were no longer encountered, self-reliance and initiative were regarded as the most valued assets of our diplomats.

It was, of course, quite evident even in those early years that the foreign service could never hope to achieve success merely on the basis of sheer enthusiasm or an abstract revolutionary spirit and a desire for innovation as an aim in itself. The safeguarding of the interests of the state and the assurance of continuity in this field required a study of the history of Russian diplomacy and the

Georgi Chicherin, People's Commissar of Foreign Affairs, in 1923.

history of various problems—both those that had already been dealt with in the past, and those that had not been resolved by the Czar's diplomats. It was essential to familiarize oneself with the rules of international law and the universally accepted diplomatic procedures, and to learn to apply them, and to master all available technical aids.

In this case no special innovations were required. But the trouble was that in those days even the most common skills of a government clerk were quite a novelty for men and women who had been born into working-class families. We felt it was very strange indeed to have to sign our names in the attendance book whenever we came to work or went home for the day, as if we were working under duress and not of our own free will. All kinds of things that are taken as a matter of course today were new for us—even elementary office terminology.

Initially, even the form of diplomatic documents was entirely new, as both in content and in form the first notes of the Soviet Government were in effect appeals to nations over the heads of their governments.

Gradually a definite pattern of work took shape, and just as gradually the Soviet diplomatic officials developed an understanding of their tasks.

Coming of age and growth are processes which entail inevitable changes and turning points in the actions of individuals and groups alike. Referring to one such crucial moment, Georgi Chicherin, the People's Commissar of Foreign Affairs in the Soviet Government, once said, "For all of us the turn from the outlook of a clandestine revolutionary party towards the political realism of a government actually in power was extremely difficult . . ." This comment was written by Chicherin in May 1924. The eminent Soviet diplomat illustrated his point by recalling a talk he had with Lenin early in 1918, just before the signing of the Brest-Litovsk Treaty.

Political Realism and Revolution

The first document of our foreign

Soviet diplomats M. Litvinov (left) and V. Vorovsky, during the Genoa Conference.

policy was the Decree on Peace issued on November 8, 1917.

For the Russian peasants who had been conscripted into the army at the start of World War I, the Decree on Peace went hand in hand with another document of the Soviet Government—the Decree on Land. At long last they could return to their homes, and take over the land, which had been confiscated from the landlords and moneybags. In the minds of the more sophisticated workers and the revolutionary intellectuals the end of the imperialist war meant the start of a social revolution in other countries, following Russia's example.

The Decree on Peace was to yield its first practical results only five months later, after the signing of the Brest-Litovsk Peace Treaty.

Editor's comment. The peace treaty between Soviet Russia, on the one hand, and Germany, Austro-Hungary, Turkey and Bulgaria, on the other, was signed in Brest-Litovsk—on the border with Poland—on March 3, 1918.

After signing the treaty, the Soviet delegation issued a statement declaring that in this case the peace was based not on a free agreement between the peoples of Russia, Germany, Austro-Hungary, Bulgaria and Turkey, but had been dictated to revolutionary Russia by force of arms.

Under the Treaty of Brest-Litovsk German troops were to remain in those territories of the Baltic area and the Ukraine which they had occupied in the course of the war. What is more, after the treaty had been signed German forces also seized the Don region and the Crimea. It was a shameful and a shaky peace, but the young republic of Soviets did get the breathing spell she needed so badly to revive the ravaged economy and to reconstitute the Red Army.

Furthermore—and this is particularly important—the new leaders of Russia, the Bolsheviks, were counting strongly on a swift change in the European situation. Their political foresight proved well founded.

A few months after the signing of the Treaty of Brest-Litovsk a revolution broke out in Germany, sweeping away Kaiser Wilhelm II and his government. The treaty was annulled on November 13, 1918—but not for the purpose of renewing hostilities.

Not for nothing did Chicherin mention the "turn" precisely in connection with the Brest-Litovsk negotiations. That treaty was an expression of Lenin's political realism in foreign affairs. We were ceding our land but winning time. Lenin knew full well that time was an ally of the Soviet state.

Programme Proposed in 1922

In the twenties the central offices of the Commissariat were made up of two parts: the political departments and the economic, legal and consular departments.

Meanwhile, external economic policy was closely inter-linked with the tasks of internal policy—both when capitalist governments were attempting to stifle the land of Soviets with the "bony hand of starvation" and the economic blockade had to be broken, and also when the implementation of the early five-year plans called for extensive imports of

foreign equipment and their financing by Soviet exports.

When the nation was beginning to develop normal trade and rail and postal communications, and where the aftermath of famine and economic chaos was being overcome, negotiations were launched on concessions and our first trade delegations arrived in foreign countries. To me there is a direct link between all these developments.

At the end of 1920 the independent Soviet republics concluded treaties of alliance whicb paved the way for the establishment of the Soviet Union. By linking the unification of all the Soviet republics with a theoretical analysis of the trends of world development, Lenin evolved from that analysis a programme of action for the Soviet republics in international affairs. At tbe Genoa Conference of 1922 the Soviet delegation put forward a programme for international cooperation of which I should like to recall several points here. They were:

- The convening of a congress to resolve major world issues;
- Tbe establishment by tbe world congress of tecbnical commissions to implement a programme of economic regeneration;
- Aid to weak states;
- Tbe planned world-wide distribution of essential goods in order to implement a rehabilitation programme;
- Tbe involvement of colonial peoples in the solution of international problems on the basis of complete equality;
- Participation of workers' organizations in international conferences.

Besides the socio-economic proposals cited above, the Soviet delegation also advanced demands for general disarmament and the banning of weapons of mass annihilation (this was long before the invention of the atom bomb, and the reference was only to chemical warfare . . .).

All this was forty-five years ago. Yet, with but a few minor amendments to make up for technological advances, all these points, either singly or as a wbole, could be adopted as a programme of action for the United Nations.

The programme of international cooperation presented by Soviet diplomats in Genoa was rejected by the capitalist governments. It did, bowever, underlie all future activities of Soviet diplomacy. It was a programme that accorded witb both our foreign policy objectives and the tasks of our economic policies at home.

Fundamental Opposites and the Principle of Coexistence

Relations between Germany and the USSR from 1922 to 1933 show that not just peaceful coexistence but even cooperation between countries witb differing socio-economic systems is possible. This assertion is warranted even though Soviet-German relations in that period were by no means idyllic and certainly had their ups and downs.

Queen Elizabeth II receiving Soviet Premier A. Kosygin during his visit to Britain.

The lack of stability in the relations between the USSR and Germany was due in the first instance to the sbarp fluctuations in German policies. The clash between the "western" and the "eastern" orientations reflected vacillations between an independent policy—albeit in the interests of a bourgeois Germany—and a policy of alignment with other imperialist powers.

The leaders of Soviet diplomacy needed iron nerves and a firm belief in eventual success in order to maintain restraint and consistency and not to depart from the chosen line.

In the given case (relations with Germany) and at the given time, directly after the establishment of the Weimar Republic, our work was facilitated by the fact that German policies were represented in Moscow by such a man as Count Brokdorf-Ranzau. He was a German nationalist and scion of an ancient noble family, but a man of great foresight and broad outlook whicb earned him the nickname of "the Red Count". At that time, during the long talks between Chicherin and Ranzau and in otber contacts between Soviet and German diplomacy, the reigning friendly atmosphere and the awareness of "common interests" helped dispose of many strong disagreements.

Economic relations went on developing and political agreements remained fully valid even though bedevilled by contradictions and difficulties inspired by a variety of constant factors—notably the bostility of the German monopolies to the socialist system or the conflicting appraisals of major processes and events of the time which stemmed from the vast differences in the two social systems themselves.

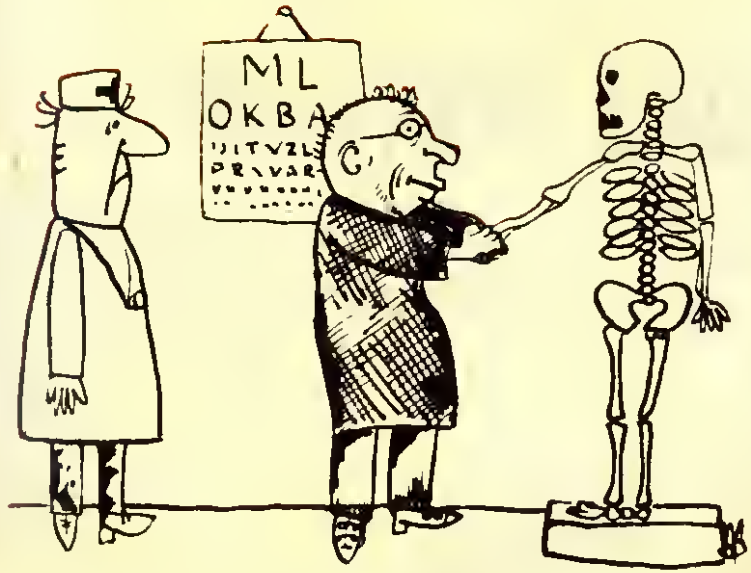
It is common knowledge that peaceful coexistence between the USSR and Germany became impossible when the German bourgeois society finally degenerated into a state of fascist barbarity and wben potential revanchism assumed the form of overt preparations for war, while bostility to socialism developed into an overt desire to destroy the socialist state. It was then tbat a chasm opened up between the USSR and Germany—a chasm that could never be bridged.

Maxim Litvinov, tben People's Commissar of Foreign Affairs, did his best to organize collective activity against the aggressor. Even before the Munich Agreement he exposed the schemes of the Munichites (such as Chamberlain) which were quite obviously playing into Hitler's hands.

It was precisely in the year tbe nazis took over power in Germany and that country became a menace to world peace that diplomatic relations were at last establisbed between the USSR and the United States (this was a result of the talks between Maxim Litvinov and Franklin Delano Roosevelt). During World War II this fact undoubtedly helped in the creation of the anti-Hitler coalition.

Through their joint efforts the Allies triumpbed over the fascist invaders. After tbe war the Soviet Union again proposed to the nations peace instead of the sword.

Drawing by A. BALASHIS



Thank you, Doc! Now I can see fine again

ASIA'S HEARTLAND

Kazakhstan, Land of Contrasts

by courtesy of Radio Moscow

To the north of Kazakhstan lie the green plains of Western Siberia, to the south the scorching Central Asian deserts. Here, in the Asian Continent's heart, equidistant from the Atlantic, Pacific and Indian Oceans, summer heat reaches well over 100°Fahrenheit in the shade, while in winter hitter Siberia-like frosts send the mercury down to 40 below freezing-point.

There seems no end to the contrasts encountered in Kazakhstan, second largest republic of the Soviet Union. The snow-capped Tien Shan peaks rise to nearly 23,000 feet, while Kazakhstan's Mangyshlak Peninsula claims the Union's deepest depression—433 feet below sea level.

But the most striking contrast in this 1.2 million square mile land of rivers and deserts, mountains and depressions, green plains and dusty steppes, is between what Kazakhstan is today and what it was five, four, or even three, decades ago.

Kazakhstan's steppes did not hear the whistle of a steam locomotive until 37 years ago. Mystified horsemen wearing pointed hats galloped away at the sight of the iron monster, leaving clouds of dust on the horizon. This was the famous Turksih (Turkestan-Siberia) Railway, ushering in an era of progress.

Kazakhstan today has 22,000 large industrial enterprises turning out ferrous and non-ferrous metals, oil products and chemicals of all kinds. And the space age came early to Kazakhstan, via the famous rocket-launching ground at Baikonur.

Once Kazakhstan's sun-baked steppes were the home of nomads driving herds from one pasture to another. As winter approached they took their herds to mountain pastures, to return to the plains when the spring sun brought them warmth. This was the routine year after year, generation after generation.

Camel caravans, in long single file, followed desert trails to Persia, India and Western China. At the caravan crossroads stood the Russian fort of Verny, which waited many long years for its promotion to Kazakhstan's capital. Verny, ancestor of Alma-Ata, set in an oasis, was one of only eight permanent settlements in Kazakhstan.

Kazakh auls—villages of crowded, stuffy herdsmen's tents huddled together—were confined to the foothills and desert fringes. Kazakhstan had virtually no industries—a few tanneries, wineries and wool and hair scouring shops, averaging four workers each. Abject poverty afflicted these people who lived on treasure—for Kazakhstan is fabulously rich in minerals.

A high czarist Russian official held out no hope for the impoverished Kazakhs. "It would take a philanthropist," he wrote, "to dream of reforming the life of the Kazakhs and

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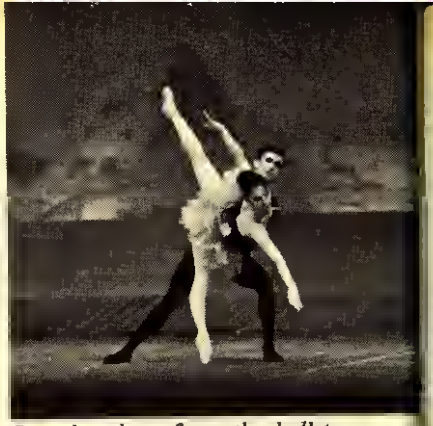
Drying department over an underground natural gas reservoir with a 35,000-million cubic feet capacity.



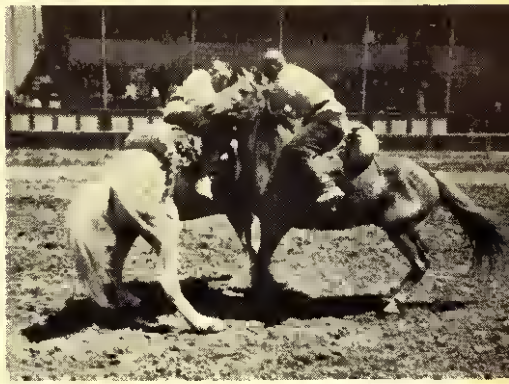
Pas des deux from the ballet "Don Quixote", at the Kazakh Opera and Ballet Theatre.

A copper mine at Jezkazgan.

Eighty-two-year-old Kenen Azerbayev, Kazakh folk singer and poet.

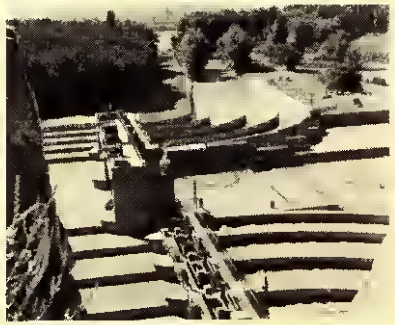
Young citizens of Kazakhstan

These deer antlers from Eastern Kazakhstan are valuable raw material for the pharmaceutical industry.



Wrestling on horseback—a natural sport.

Tanker on the artificial Bukhtarma sea, formed by the dam of the Bukhtarma Hydroelectric Station.



The Chu canal, which supplies water to Kazakhstan and Kirghizia.

making them as enlightened as Europeans. I wish wholeheartedly that they may forever remain nomad shepherds and never do any sowing or learn any handicraft, let alone science.

Kazakhstan remains the same houndless plainland with the same mountains gleaming on the horizon. But amid this plainland, like a dark amphitheatre, is the open-cut coal-face of Ekibastuz—pride of Kazakhstan's coal-mining industry. Giant excavators lift five tons of coal at each bite from this 330-foot-thick layer, to fill rail cars for Urals and Siherian industries. Kazakbstan's 200 large coal deposits have resources running into millions of tons.

Ancient mines overgrown with grass helped to draw Soviet scientists to the Jezkazgan steppe, whose name suggests mineral riches ("jez" means copper in Kazakh). They found copper, coal and other riches, and so on the desolate, treeless steppe a large new city arose, complete with squares, gardens, libraries, restaurants, cluhs and a TV station. The hotanical gardens are so vast and offer such variety that they hring to mind the Oases of Scheherezade.

Victory Over Erosion

Traditionally a cattle-breeding and never a grain country, Kazakhstan, sowed more than 75 million acres with grain in 1964 and harvested 24 million tons. Virgin land reclamation in the Kulunda and Kustanai steppes was planned like a military offensive in its scope and in the equipment employed. The first sowing on land never hefore turned hy the plough took place on April 23, 1954. Early in the morning team-leader Fyodor Rayin, on horsehack, led a column of heavy tractors. Suddenly his horse reared—at the sight of a large pack of wolves, apparently guarding their desolate steppe from the ploughmen.

Kazakhstan today has 1,500 grain farms, each with an area that can hardly he viewed at one glance from a helicopter. A waterway of over 1,200 miles was brought into the arid farm areas from the River Ishim.

Newspapers sometimes refer to Kazakhstan as "the grain factory". In good years, the Republic produces ahout one-third of the Soviet Union's total crop. But it would he naive to think that Kazakhstan does as well as this every year.

Local farmers will tell you proudly that over the past eleven years (virtually since the virgin lands were opened up) they have been selling the state an average of 10 million tons. In some years they have harvested well over double that.

That is all true. But in those eleven years the virgin steppe has three times heen seared hy terrible drought. Any year, at harvest time, the dread *chilik,* may hlow from the scorching Asian deserts. Then a myriad red-hot sand-specks may knock the grain from the ear if it is not gathered in time.

Yes, the grainfields of Kazakhstan are a factory, a modern one, too. But so far the people there do not have quite as easy a time as those who work in their factories in white overalls and gloves.

There is at least one more problem: how to keep the land fertile. Endless fields of grain give an impressive picture. But this is just what things should not he like in Kazakhstan. It is wrong to plough up every inch of land, including the hills. The wind will sweep tbe fertile soil into hlack dunes, will dry it out and carry it along from place to place ahove the exposed sandy subsoil.

Among the measures heing used to comhat the very real threat of wind erosion are the planting of shelter belts, minimum disturhance of the soil in ploughing, and crop grass fallow rotation.

Although it cannot be said that 1967 was a particularly good year for the former virgin lands, Kazakhstan supplied ahout 18 per cent of the total purchased hy the state. This is ahout as much as was provided hy the Ukraine, the USSR's traditional granary, where the climate is not so capricious and the soil is pure black earth to great depths.

Shakespeare in Kazakh

Kazakhs were illiterate shepherds fifty years ago, when the Socialist Revolution took place. Fifty years ago they did not have a single college or theatre. It was the tragedy of 12 million people that they had no written language of their own, and no secondary schools that accepted Kazakhs.

With Kazakhstan a member of the Union of Soviet Socialist Repuhlics, national culture received a powerful impetus. Cultural progress hegan only recently: that may explain why Kazakhs have such a high regard for their writers, poets, actors and musicians. Training of Kazakh experts first hegan in Moscow, Leningrad, Sverdlovsk and Novosibirsk. Now the Republic has enough of its own educational, research and cultural centres to meet the needs of a couple of European countries.

Kazakh girls showed great gifts for languages when the Foreign Languages College opened in Alma-Ata. Many speak good English, French and German and make competent guides and air hostesses. Young Kazakh translators staff the puhlishing houses. Many Kazakhs who did not grow up in a world in which translations from other languages were freely available discovered the literatures of other peoples. Shakespeare is very popular in Kazakhstan. Getting tickets for his plays at the Drama Theatre has been a queueing problem for 20 years.

Third prize at the last National Conductors' Competition in Moscow went to a Kazakh, Fuat Mansurov, of the Alma-Ata Opera and Ballet Theatre. Fuat Mansurov is a keen student of English music, a versatile sportsman and dedicated mountaineer. He conducted the Moscow Philharmonic Orchestra, playing "Variations on a Theme hy Purcell", hy Benjamin Britten.

Mansurov's grandfather never held a book in his hands. His father learned the alphahet at a mature age.

So among Kazakhstan's many contrasts, those of geography and climate are not the most telling.

Oceans of oil lie under the cracked, baked surface of the Mangyshlak Peninsula.

The "Issyk" outdoor restaurant in Alma Ata.

Former virgin lands.

Left: *The new port of Shevchenko on the Caspian Sea.*

Prospecting at the foot of the ancient Mount Yurta.

VALENTIN SEROV

V. Serov. Self-portrait. 1901.

THE IRONY OF COMMON SENSE

Russian Art Treasures

by Boris ASAFYEV

from the book Russian Painting. Thoughts and Reflections.

Valentin Serov (1865-1911) was an outstanding figure in the world of Russian art before World War I.

Serov regarded every phenomenon through mistrusting eyes. Whether examining a human being or a new technique in painting, he did so sceptically, analytically.

Once he had formed an opinion, he proceeded in a straight line, undeterred by the vagaries of fashion or the wishes of his sitters. In this respect he was unquestionably both leader and reformer—though he had no wish to lead. In his work, he was strikingly individualistic and stubborn.

He greatly resembled his father, Alexander Serov, composer and philosopher, who approached any contemporary development in music and culture with caution and invariably had his own keen and ironic perception of all things. In the words of Kipling, he was "The Cat That Walked By Himself". His irony was not sheer scepticism, was not indiscriminate but directed solely against things he disliked.

Valentin Serov himself was a past master at irony, which he used as a protection against any temptation to stray along some unchecked, unanalysed path. But because of this same mentality, he never made his own conclusions obligatory principles for others.

One is ever conscious of the power and conviction of his intellect—in his work emotion and intellect are completely integrated. Even when he was afire with creative passion his mind was at work—as was Michelangelo, Rembrandt, and possibly Cezanne.

His drawings of animals are remarkable. He was at ease with them—investing them with human traits, engaging in a little satire, getting to the heart of the matter without a single inessential stroke. His wealth of illustrations to Krylov's fables comprise a series of what may be called "Portraits of Imaginary Characters", which I believe fully reflect his ideas on people.

When in Moscow in 1888 he exhibited two portraits, one of V. S. Mamontova (Girl with Peaches) and another of M. Y. Simonovich (Girl in Sunshine), the impression created was startling. They were miracles of beauty, with the realism of the old masters and a modern feeling for colour and sunlight. Nevertheless, all his further work was against the stream. Again and again he reviewed all the possibilities inherent in drawing—which he considered one of the greatest activities devised by mankind.

He posed the "thinking" graphic line against the "sweetly intoxicating" riot of colour. For behind the colourful brilliance of contemporary artists there was too often nothing but a childish infatuation with colour, and a mediocre mentality.

Serov's irony derived from common sense—which is why it was not directed at every element of life around him. Whenever his eye was caught by a typically Russian landscape, a glimpse of rustic life, children or animals, his paintings were tender and trusting—but never maudlin.

To people of whose integrity in work and life in general he was convinced, his attitude was always

Right: Portrait of M. Yermolova. Tretyakov Picture Gallery, Moscow.

The dancer Ida Rubinstein: Russian Museum, Leningrad.

sympathetic. He could never treat Pushkin with irony. I am always particularly moved by his image of Pushkin in the autumn gloom, on horseback, himself the hero of a romantic ballad. It seems to me that no one has better understood the heart of the poet than Serov.

It is in such paintings that one begins to see past the armour of intellect and irony another facet of the artist's work: joy at the perception of integrity.

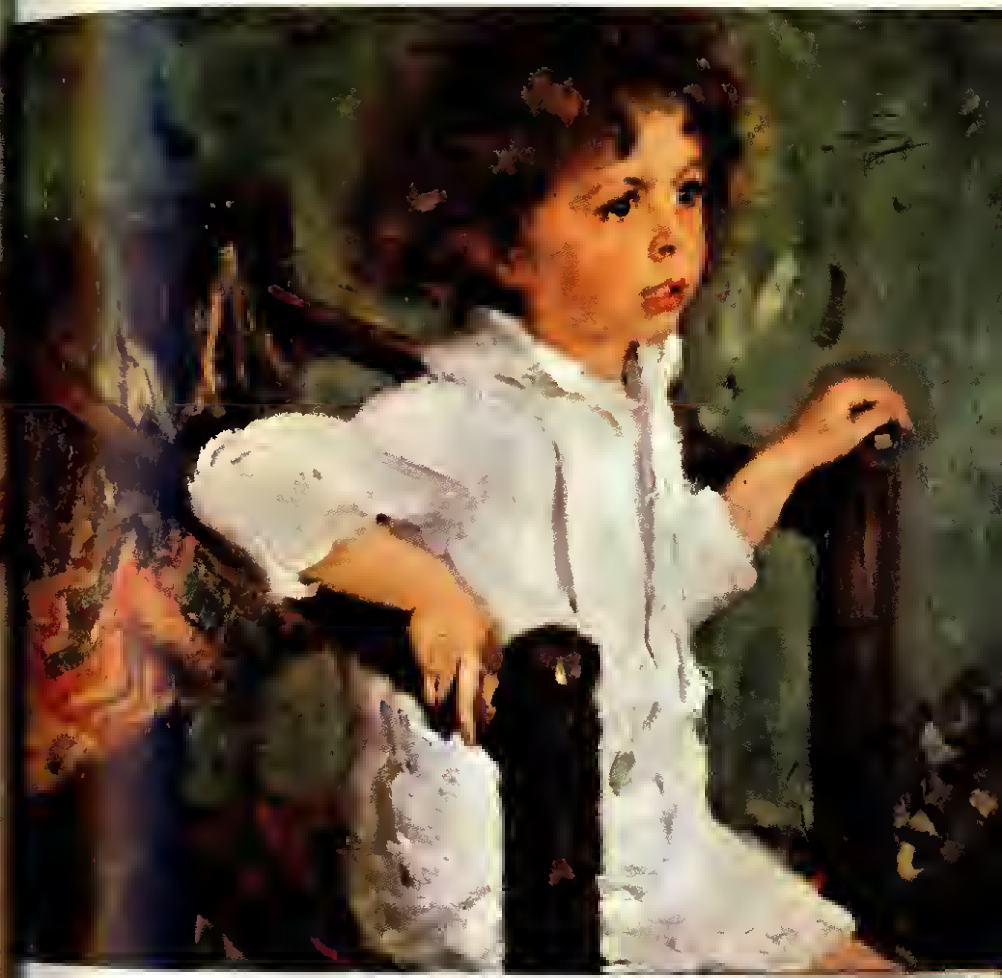
This is true of his famous portrait of Peter the Great, that imperious builder and master of life, carried

away by his own tempestuous energy. Although there is a tinge of irony here, in this almost frenzied figure, Serov reveals a subtle feeling for history and involuntary admiration for so powerful a personality. Defying all the laws of static painting, his Peter seems to move as though he is leading not a pitiful crowd of hangers-on, barely able to keep up, but a whole country reluctantly yielding to his efforts.

Serov's paintings do not fit into any one genre. Neither his Pushkin nor his Peter is portraiture or descriptive characterization. His rustic scenes are really not scenes but symbolic, profoundly thoughtful generalizations. It is clear, of course, that his heart is with this genuine rustic

Left: Peter the Great (canvas, oil). 1907. Tretyakov Picture Gallery.

Pushkin, the great Russian poet. Serov could never treat him with irony.



Mika Morosov (canvas, oil). 1901. Tretyakov Picture Gallery.

Left: Children (canvas, oil). 1899. Russian Museum, Leningrad.

mood, not with the society people whose portraits he painted.

To judge from the work of Serov the portraitist, Serov the man did not like people, did not believe in mankind and was sceptical of all that is genuinely human. In this he resembled Alexander Blok, that most lyrical of poets whose diaries make

Left: Girl in Sunshine. 1888. Tretyakov Picture Gallery.

The Rape of Europa. From the Serovs' family collection.

such terrible reading that one feels like shouting: "Do believe in at least one human being, in at least one noble soul!"

Serov's portraits are of people of definite social standing whose class demands they maintain a pose. Such is his celebrated painting of Girshman. The artist subtly noted the pose of the wealthy art patron and did a very realistic but extremely satirical portrait. No wonder people said it was dangerous to have one's portrait painted by Serov.

His picture of the art critic D. V. Stasov is that of a typical, intellectual lawyer, and, moreover, a faded and aged man. Had he been depicted

Illustrations to Ivan Krylov's fables.

discussing some memorable contemporary, say Glinka or Berlioz, or handling a cherished book, or listening to music, or himself playing the piano, the colourless old man would have revealed youthful emotion. But Serov chose to paint Stasov in the characteristic role he assumed in his own circle. As a result the portrait is true, but the person portrayed is only half alive, half presented.

In painting Chaliapin, Serov could not refrain from subtly underlining the great singer's height, so imposing on stage, yet somewhat absurd when clad in frock-coat.

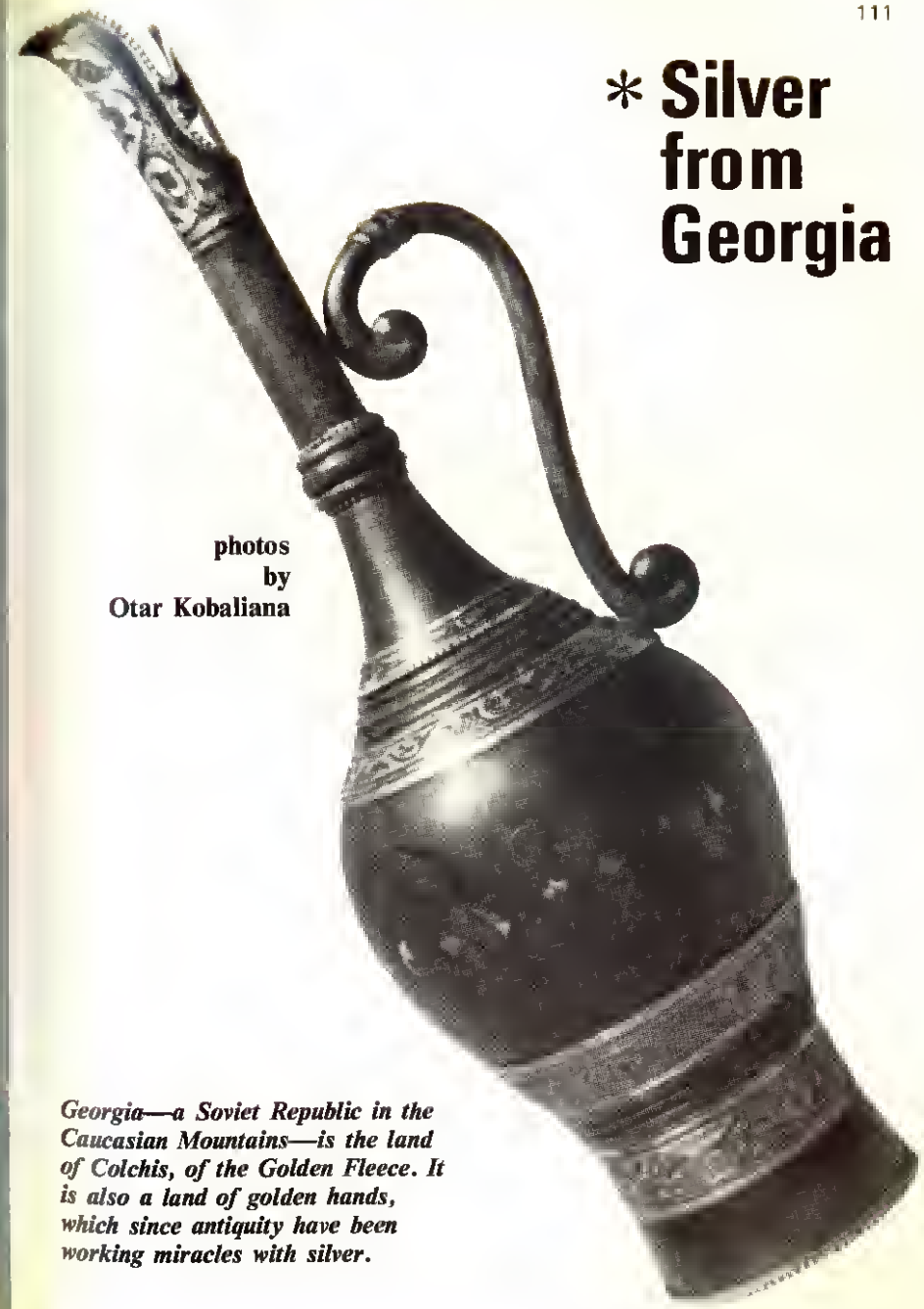
Connoisseurs are accustomed to praising his portrait of the actress Yermolova. However, Serov emphasized the actress more than the woman. In addition, owing to the incoherent background, he robbed the celebrity of the stateliness she would have displayed had the background been one unobtrusive entity.

Serov's gallery of portraits, though definitely realistic, should not trap the unwary into accepting his characterization of the people concerned. One must bear in mind the artist's own, highly individualistic style, plus his sceptical attitude to the human ego and his suspicion that unusual qualities meant posturing.

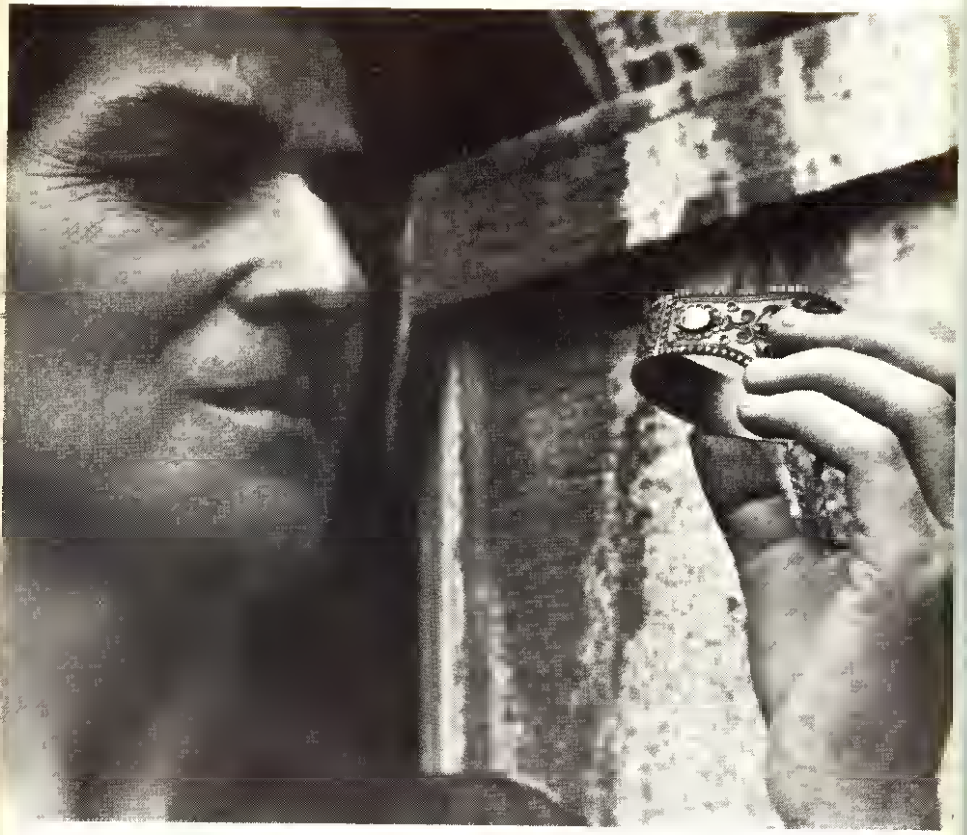
His art is fascinating if looked at from the viewpoint of his constant restlessness and discontent with his achievement. On the other hand, anyone who thinks line and form no more than formal categories, will find the artist's creative methods unrewarding.

* Silver from Georgia

photos by Otar Kobaliana



Georgia—a Soviet Republic in the Caucasian Mountains—is the land of Colchis, of the Golden Fleece. It is also a land of golden hands, which since antiquity have been working miracles with silver.



Manaba Magomedova, a silversmith, cannot tell you how many generations of silversmiths there have been in the family. She only knows that the number must be vast, otherwise who could explain why the Magomedovs' eyes immediately size up all the potentialities of a gem and their fingers instantly trade the rhythm of the silver.

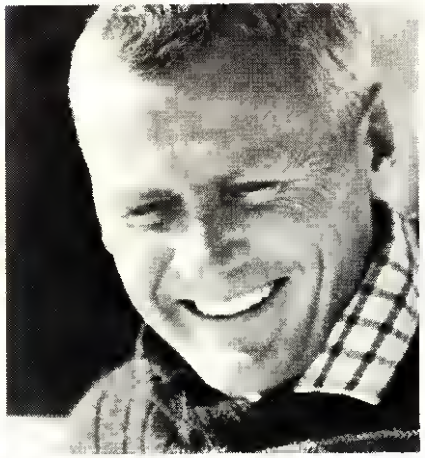
Toilet set. From the polished horn flask to the delicately nielloed silver, it is the work of Manaba Magomedova. All but the glass in the mirror.

These objects perhaps sum up the national spirit of Georgia. The dagger, a symbol of honour, of bravery; the horn, which once filled with wine must be drained to the depths before it is set down, symbolizing openheartedness, generosity and joie-de-vivre, and the tray, indicating the hospitality of the Georgians.

Not only do these adornments add to a woman's beauty, say the silversmiths, absorbing part of her charm, the jewellery itself gleams with life.

The highlands . . . a typical Gippenreiter picture.

VADIM GIPPENREITER



Vadim Gippenreiter, photographer for the magazine *Ogonyok*, has travelled widely. He has crossed the Russian plains and tbe scorching sands of Central Asia; be has drifted among the icebergs in tbe Arctic. He has seen the giant steel plants in the Urals, and tbe virgin lands of Kazakhstan. He has admired the clear waters of Lake Baikal and been thrilled by the fiery breath of volcanoes. He was equally attracted by the towering granite cliffs of the Caucasus and the quiet wooden churches of Northern Russia.

Vadim Gippenreiter has won a nation-wide reputation as a first-class photographer.

The Russian scene.

Eruption

Mitrofan the ferocious

a story

by Irina GURO

from the weekly Literaturnaya Rossiya

Anyone who has a Scotch terrier knows what trouble is. Anyone who has a ferocious Scotch terrier is a lost soul.

A man may be fierce, a dog ferocious. There's a subtle difference here. A fierce individual has some possibility of mending his ways, but once earned, the adjective "ferocious" sticks to a dog to the end. It is just like the inscription: "Colouring —black" on the breeder's certificate.

I have had dogs of various breeds and characters. I had a sheepdog once. It was an ungainly creature, and in its youth its rather foolish face put one in mind of a sheep. I had a lot of trouble over that one, purely because of his own naivety.

Then I had a bulldog, a presumptuous animal that had no idea whatever of self criticism, and deliberately played dirty tricks on people.

I also had a tiny toy terrier. It is the sole breed of dog that differs from the flea in only one respect—it does not bite its master.

My memories of all of these breeds are of the most complex nature.

But all the unpleasantnesses suffered at their hands are nothing compared with the sufferings Mitrofan brought me.

He always managed to upset someone, even on the briefest outing.

One memorable morning I got Mitrofan into a taxi by brute force and we sped towards the station. The whole way the taxi driver kept glancing nervously over his shoulder.

"Don't worry. He won't bite," I said.

"He'll have my collar off," the taximan prophesied with conviction.

"What makes you think that?" I asked, astonished.

He embarked on an idiotic story of how a bulldog had got into his taxi "just the same way" and its owner had energetically protested, "in just the same way", that it didn't bite. When the driver had to pull up sharply at a traffic light, the bulldog had shot out of the back seat and fastened his teeth into the taximan's astrakhan collar.

"And how d'you like that! He got out with my bit of astrakhan still between his teeth. Had a really iron grip," the man concluded with a melancholy air.

He was silent, but not for long.

"Once I took a sheepdog. And believe me, he chewed up absolutely all the upholstery on the way."

I looked fearfully at Mitrofan. He wasn't chewing up anything, but he was annoyed by the driver's chatter and his whiskers were quivering. I stroked him, but he backed away coldly.

The driver's recollections were creating a somewhat tense atmosphere, and I was glad when he began to wander from the subject a little.

"And another time I took two Siamese tom-cats to be married," he announced.

I said nothing, but he went on.

"You don't find Siamese cats lying around the street. They'd been to great lengths to get them as mates for some she-cats. That trip was to a place fifty miles from Moscow."

"So you came back without a fare?" I asked, to keep this shop talk going.

"Not on your life. I brought the cats back. Their brides didn't take to them!"

There was a pleasantly festive atmosphere in the electric train, as is usual when the Young Dogs' Parade is in the offering—the very title of the show has something springlike and cheering about it. The compartment was crowded. A young man carrying a miniature poodle and wearing a sweater with a big check pattern like a cot blanket, gave up his seat to me.

The train slid out of the station and the dogs set up a concerted howl as if saying farewell to Moscow for ever.

Around me a lively discussion on canine matrimony was in progress.

"What's the whole trouble? I'll tell you!" a man in a panama said insistently. "The whole trouble is that THEY"—and here he deferentially embraced the whole canine company with a flourish of the hand—"will not tell you anything. Take my son. Now he'll say to me: 'I'm going to marry Lucia'. But THEY . . ." Here followed another expansive gesture. . . .

"THEY don't let you know. You keep on trying to arrange something, and nothing happens."

I remembered the cats and gave a sigh.

The young man in the cot blanket leant towards me and asked confidentially: "Do you see that woman by the window? I stayed with her for two weeks, and my Lady got quite used to her Chubchik . . . And what was the result?"

"Pups, probably," I suggested flippantly.

"Hugh! Nothing at all!" the young man snapped out, his eyes glittering, and he tossed Lady onto the floor.

Mitrofan immediately started growling at her, but I cut his aggressive outburst short with an energetic "Phoo!"

"And was the trainer there?" inquired a plump, self-important looking woman with a striped boxer. She spoke in the tones of an expert.

"What do you think!" the young man replied indignantly. "As if we wouldn't have had the trainer there!"

"Ai-ai-ai!" the boxer's owner sympathized.

Her companion, a fat man in gold-

rimmed glasses, was puzzled. "What's the trainer got to do with it?"

Madam Boxer went a bright pink and explained to all and sundry that her husband was not *au fait* with modern methods of dog-handling—emphasizing the word "modern". Everyone looked at him pityingly, as if to say: "Too ignorant, of course!"

But her husband started arguing:

"Well then, how do ordinary dogs manage, the ones that roam the streets and get themselves in the family way without any trouhle at all?"

"Good Heavens! 'Roam the streets'. 'Get into the family way'," the woman hy the window whispered in horror, stroking her toy terrier as if convinced that such crudities could never apply to him.

The young man gave the ignorant husband a withering look, his gaze running from head to foot, and then spat on the floor. The boxer's mistress sat there as red as a beetroot out of shame for her husband. Even the dogs seemed to he shocked.

My fears that Mitrofan would somehow succeed in snapping at someone or some dog reached a crescendo as we stood in the queue waiting to register. I thought it hetter to pick him up, and he twisted his head this way and that in despair. In front and hehind stood people with sheepdogs and boxers, and Mitrofan cannot stand big dogs. But I clutched him to me, muttering in his ear tbe sacred command: "Phoo!"

At the very moment when I was handing in the documents for registration Mitrofan contrived a wriggle and sunk his teeth in the ear of a marhled Great Dane. It was such an enormous animal that its ear was on a level with my elhow and, of course, Mitrofan could not bear to let the opportunity slip.

The Great Dane's owner shrieked that she had had her eye on Mitrofan for some time, that he was ferocious, and perhaps even rabid. To the incensed owners of large dogs she yelled a demand that my beast be withdrawn from the show.

"Out with that bearded Scottie!"

Just then I got my documents hack and with Mitrofan tucked under my arm made for the parade ring with all speed. I ran so fast that I could not imagine anyone catching up with me, but I discovered with horror that a van with a blue cross —veterinary inspection—was coming after me. It halted by my side, and out stepped a white-coated, starched-hatted vet followed by two hulking great assistants. Mitrofan was infuriated hy the sight of the white overalls—he bad already had some injections in one of the tenderest parts of his body. And there was no fooling him!

"He's ferocious!" the medicoes diagnosed in chorus.

There was no point in arguing, and I hegan to put Mitrofan's muzzle on. He resisted, yelping, and two women from the Society for the Prevention of Cruelty to Animals came rushing to the scene. Then the episode was inflated to new dimensions as we were joined by the owner of the hitten Great Dane, who kept shouting that Mitrofan had hydrophobia.

The vet spent a long time scrutinizing the health certificate given hy the district vet, evidently suspecting it to he a forgery.

Finally he warned me not to remove Mitrofan's muzzle until the show was over.

So it was that in that gathering of huge, furious-looking boxers and sheepdogs with formidahle, gaping mouths as hig as lampshades my little Mitrofan was the only to he walking ahout morosely wearing an inelegant muzzle. At the sight of him with wisps of his Assyrian heard straggling through the muzzle here and there, some uncultured types in tbe crowd laughed and engaged in what I considered inept witticisms in which endless synonyms for "ferocious" figured.

An opulent car drove right to the ringside, and there alighted a pompous, portly individual in a smart grey suit resplendent in the sunshine. He hauled out a black poodle, as pompous and portly as himself.

A scraggy woman slid out of the car hehind him, and then, howing to right and left, out stepped Charlotta Karpovna, the trimmer, known to every single soul there.

"The psychological moment," she said ingratiatingly to the portly gentleman. "There's the chief judge over there. Dim Dimych. You go over to him."

He gave a cough, did up all the buttons on his jacket, then handed the lead over to his wife. The next second he said in irritation: "That's not the way to hold it. Change over to the left hand."

As he strode holdly over to the judges, the poodle owners took stock of him, and the young man in the cot hlanket called out hysterically: "Of course, that kind'll get through out of turn!"

"I have faith in justice," ohjected Chuhchik's mistress.

But the man was already summoning his wife with a majestic sweep of the hand.

The black poodle waddled up to the judges and pandemonium hroke out in the camp of the poodle-owners.

Such was the uproar that the judge could not make himself heard, and be began to tap his fingernails against his teeth.

A jubilant roar went up from the poodle camp. Each one knew the time-hallowed gesture. It meant "Teeth!" His teeth didn't meet properly when he bit. Out of the ring!

Charlotta rang along the rope, wringing her hands and calling out urgently: "But his exterior! His legs! His ears!"

But it was of no avail. Smarty-hoy was put to shame.

Now it was the turn of the Airedales, who entered the ring pushing and snapping at one another.

A command from the judge:

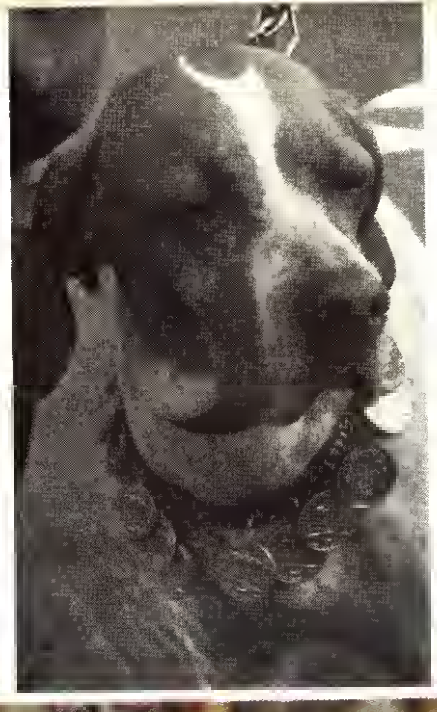
"Omega—Epstein, run!"

Omega, a graceful, well-hehaved dog, looked at its owner.

"Run!" Epstein whispered.

Omega was bashful.

There was no time for hesitation



Disdainful
hauteur,
naïve
expectation,
the wisdom
of
maturity—
and oh,
what class!

—the judges were looking at the stop-watch. Epstein flung his jacket down on the grass and dashed along by the rope. Omega followed him joyfully, with an appealing look.

"Good show!" called the crowd.

"Running—five points!" the judge announced.

"Jumping over obstacles!" was the next command.

Omega leapt over the barrier, and her excited owner followed suit.

There was loud applause from the crowd.

"Refusal of food!" the judge announced.

"And vodka!" shouted some wag in the crowd.

Some meat was thrown to the dog, and Omega turned away, smacking her chops nervously.

"Ten points for refusal of food! Omega—Epstein, refusal of food —ten points!" boomed the judge this time.

A sweating, happy Epstein lugged Omega from the ring. And as his hands were occupied with his dog, the medal on its ribbon dangled from his teeth.

The reader can imagine my excitement when I say that this was Mitrofan's first appearance at a show. In spite of his muzzle he looked wonderful. All the features that are the hallmark of Scotch terrierism were displayed with extraordinary clarity in him. His face was the shape of a brick. His beard was curly like that of an Assyrian king. His tail was like a bouquet of flowers and his hair had a fine coal-black gloss. Charlotta's skill had played a role in this—Mitrofan was dandified to perfection.

The moment came for the judges to examine the dog's teeth. Came the command: Remove the muzzle! Tension rose to fever point among the crowd, and I realized I was in the same state myself. The chief judge also displayed his molars—stained with nicotine.

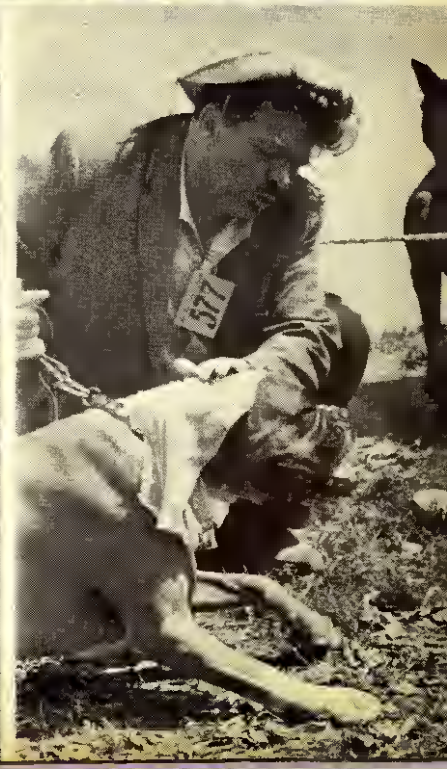
Mitrofan's teeth were in perfect shape. It was already a foregone conclusion that the gold medal would soon be hanging from his collar. I could see it. A small brass disc embossed with the head of a dog . . .

But a black cloud suddenly obliterated this wondrous vision. Mitrofan bared his teeth menacingly and nipped the judge's finger. A horrified murmur ran through the spectators, and the young man in the coat blanket groaned as though he'd been bitten himself.

Someone in the crowd made a distinctly hostile remark.

And the worst of it was that Mitrofan had no idea of the depths to which we had sunk, and gazed about him triumphantly, his whiskers twitching with pride.

Dogs and owners of all shapes and sizes on parade




I'll
not
be done up
like a dog's
dinner
again!

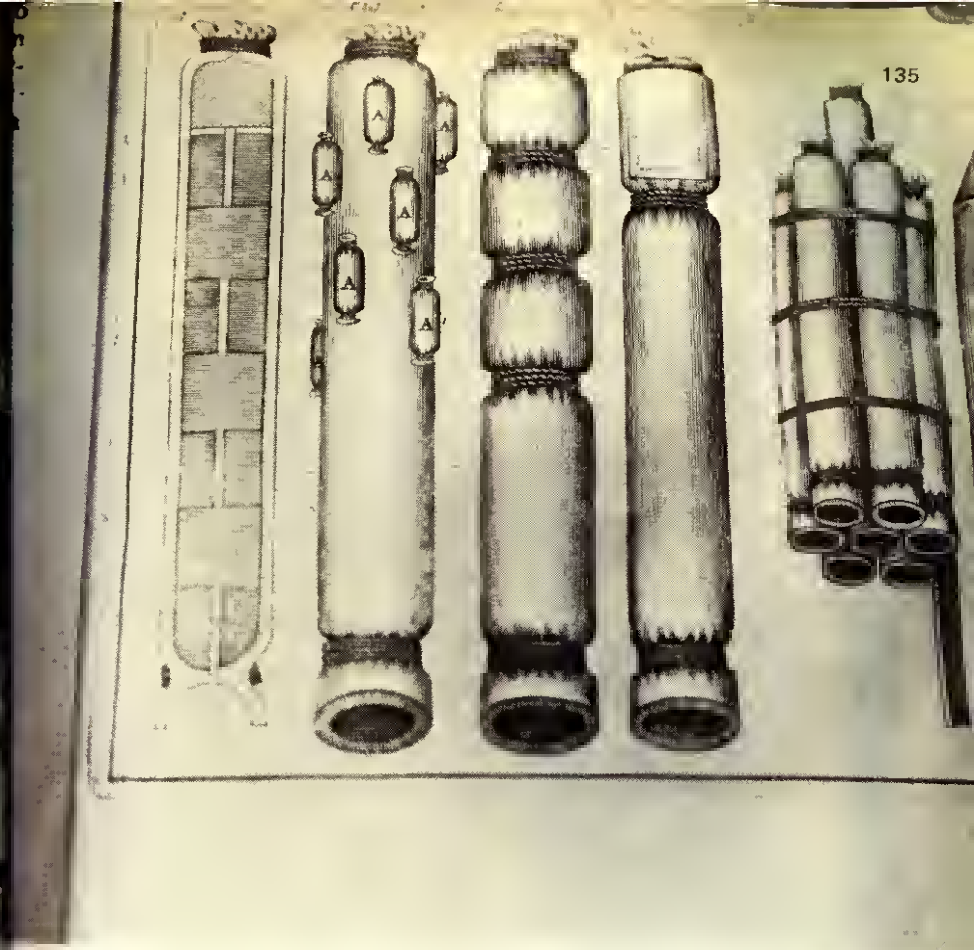
HOW OLD IS THE HELICOPTER?

In 1476, Leonardo da Vinci sketched a section of the Archemedean screw, now known to every schoolboy. That is the principle on which the helicopter operates. In 1746, the Russian scientist Mikhail Lomonosov constructed the first helicopter model.

Many years after planes were circling the globe, the helicopter remained on the drawing boards.

Not until 1934 was the helicopter proved to be a practical proposition. That year Prof. A. Cheremukhin rose to a height of over 2,000 feet in a trial model.

From the newspaper
VECHERNIAYA MOSKVA



cosmodrome in a university hall

continued overleaf

Sharp-nosed rockets of varied calibres point skywards, stabilizers slanted and ready for launching. Three-, four- and even seven-stage apparatus stand in front of them. These rockets are displayed in the Barocco Hall of Vilnius University. The scientific library of tbe University boasts a unique book. Colonel K. Semenavichus, a Lithuanian, wrote it more than three centuries before the first spaceship went aloft. This work—on the use of rocketry in artillery—is illustrated with curious drawings of rockets which bear an almost uncanny likeness to present-day space vehicles.

from the weekly NEDELYA

Vsevolod Zenkovich, D.Sc. in geography, Lenin Prize Winner.

"I am sorry, Zenkovich, but you won't get your diploma. You'll never make a geologist if you've never seen an ore-mine. And you're constantly away on sea trips like a devil-may-care free-booter."

With these words, a final-year geology student, Zenkovich was expelled from Moscow University in 1932. In 1960, by then author of 230 research papers, Professor Zenkovich was elected President of the International Coastal Oceanography Committee. In 1965 Dr. Zenkovich won the Lenin Prize for his book Processes of Coastal Development— *shortly to be published in Britain.*

Devil-may-care Oceanographer

from the ONCE IN A LIFETIME YEARBOOK

Zenkovich in 1927. This devil-may-care look did not prevent him from becoming a world-known scientist.

WOODEN SHIPS REQUIRE NERVES OF STEEL +
TWO ELEMENTS OF NATURE AT WAR +
WHERE SEAPORTS ARE SECURE +
A FLOOD OF PEBBLE SENT BACKWARDS +
SCIENCE SAVES A RESORT +
ELEMENTS OF NATURE AND MATHEMATICS +
30 EXPEDITIONS, 7,000 MILES IN COASTAL WATERS,
230 RESEARCH PAPERS IN 35 YEARS.

The Black Sea was remorselessly filching 13 feet of Sochi coastline a year. The surf pounded away the beach of Primorsky Park, and the trees clutched the eroded, precipitous shore, exposing their tangled roots. Landslides could have carried the newly built theatre and many sanatoriums of the Soviet Union's largest health and holiday resort down into the sea.

The Black Sea was taking revenge for man's errors. Sochi port installations had been built in haste. Concrete piers were so sited that they blocked the flood of pebbles which previously moved north to south along the shore. North of the pier the bank-up of pebbles was extending the beach under holiday-makers' very eyes. South of the pier the clay shore was denied shingle protection against the surf's furious onslaughts.

The saving of Sochi from the sea was a priority task set Professor Vsevolod Zenkovich of the Oceanology Institute founded just after World War II. He studied closely the alongshore drift—a flow not obvious to the eye but regular and continuous like the surf—and the sea-floor yielded vital information to him and his fellow-researchers.

Every single pebble was in motion, some shifting as much as 2,200 feet daily. Thousands upon thousands of cubic feet of seabed shingle, they found, pass over a strip of foreshore a few yards wide annually.

Reinforced concrete jetties were built on the recommendation of scientists to protect the shores. The jetties were then heaped over with shingle and the resort of Sochi was saved.

Studies have continued along the whole Caucasian coast. The scientists have been able to advise hydro-engineers how to save other beaches, how to create new beaches and to protect coastal beauty spots from erosion.

The roaring breakers smash against
the awesome rocks,
And, foaming white, roll back to
pound anew.

Why and how do breakers smash; why do the waves roll back and forth? Many have watched the angry surf in wonderment, not able to understand movements that change the shape of islands and continents.

Earth's seacoasts measure more than 600,000 miles—the length of 25 equators. Everywhere the land is constantly attacked by the sea—at the forbidding rocks of Kamchatka,

Disastrous consequences of an engineering mistake. Piers built in the wrong place prevented the flow of pebbles to this part of the shore. As a result the beach narrowed and the sea got to nearby buildings.

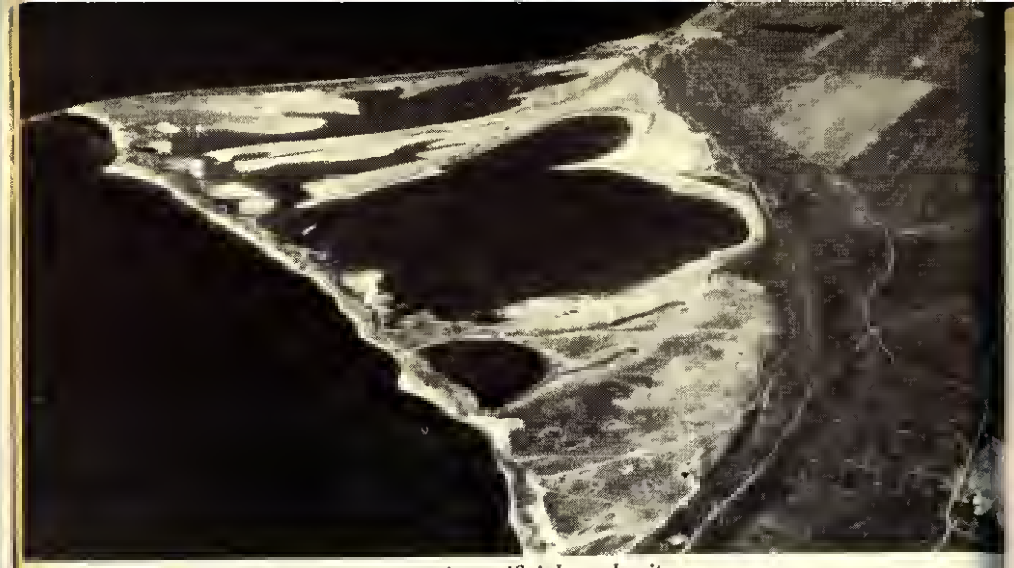
on the Azov Sea's sand-spits, the Laptev Sea's islands resting on ancient fossil ice, and the coral reefs that shield the Pacific atolls. The laws governing the assault of wave on coast, when discovered, provided keys for deciphering the codes of the Earth's history.

* * *

Diving from Crimean rocks as a boy, Zenkovich pondered on why Karadag basalts rose, steep and rugged, above the shore, while Chersonese limestones were smooth, as if polished by the waves. More mysteries of the seacoasts perplexed the university student when he explored the offshore terraces of Novaya Zemlya, in the Arctic.

What takes place in the ocean deeps? Can tides and littoral currents be compared to river currents? Does the sea eat away rock fragments that fall into it? Neither the oceanologists, who had gone down into the ocean's depths, or had drifted thousands of miles on ice-floes, nor the geologists, who knew much about the Earth's crust, could answer Zenkovich's questions. Where land met sea there was still, it seemed, a No Man's Land, unexplored.

In his restless student years, Zenkovich was on the staff of the Floating Marine Research Institute established in 1921 under a decree bearing Lenin's signature for "planned, all-round study of the northern seas, their islands and coasts". The Institute laid stress on daring in exploration and perseverance in research. Zenkovich headed a marine geology laboratory in Murmansk at 23 years of age, and in another eight years be



An artificial sand-spit.

sustained a thesis that earned him a doctor of science degree.

* * *

"Sailing wooden ships requires nerves of steel!" The captain, Zenkovich, cheered on his assistants, people even younger than himself, as they ventured into the surf in a frail wooden vessel with patched sail roughed by spindrift, armed with only a spy-glass for observations. That was the outfit of marine geologists of the thirties.

Zenkovich knew that tens of millions of roubles were spent annually on deepening sea channels against the encroaching sand and mud. For man to deal with the drifting sands he must know the speeds at which waves and currents move them. Sand grains dipped in luminous paint and dropped into the sea enabled scientists to gauge sand drift. The marked sand specks in samples gathered by divers could be easily located by luminoscope—they sparkled in the ultra-violet rays like stars in a dark sky.

Zenkovich sought more modern devices. At his suggestion Vershinsky, an engineer, designed electronic recorders that registered every change in water movements during a storm. Vibro-piston pipes easily take samples from the seabed, laid down over thousands of years. Air-borne cameras can photograph the structure of the seashore and the seabottom along the coast.

* * *

The ores of Kerch, on the Sea of Azov, are drift of an ancient sea—the Cimmerian. Its waves carried iron-oxide specks just as sand and shingle are today carried back and forth by the Black Sea. Ukrainian geologists, proceeding from Professor Zenkovich's theoretical assumptions, have calculated the course and terminus of this drift. The newly discovered deposits have proved to contain seventy million tons of ore, and geologists are now applying similar theories and methods in the search for mineral deposits containing zirconium, germanium and minerals from which titanium can be obtained. So those academics who berated the student Zenkovich at Moscow University were a little wide of the mark.

Zenkovich and his assistants have explored over 8,000 miles of the USSR's coastal zones; he has contributed significantly to studies of the North Sea, the Adriatic, the South China and the Yellow Seas. He discovered by his researches, the law that the area of action of forces that change coastal outlines is the seafront bottom, where land and sea meet. He elaborated and tested his theory on the changing profile of the littoral zone, and studied the main phases in the evolution of coastal contours. His work enabled scientists to find out how thick drift layers settle in the littoral zone and why.

* * *

The Professor constantly sets himself new tasks. Complex processes of the littoral zone will be expressed in the language of figures. "We already know ways to obtain accurate formulas by which these natural processes can be expressed mathematically," Dr. Zenkovich said.

A scientist in his fifties is mature, full of creative ideas . . . .

Even the most colourful sea pebbles lose lustre when taken from the water. On Zenkovich's desk, in a plexiglass water tank, are pebbles that keep their lustre . . . .

Nothing Stands Still

If continents and islands were motionless, the waves, working over millions of years, would have smoothed out the rough coastlines. The beaches would have been converted to streamlined arcs, protected by stretches of drift. But continents and islands are active, so this does not happen. They send thousands of millions of tons of silt and sand into the seas. When these are concentrated in small areas, the waves cannot cope with them. And continents do not stand still. The Earth's powerful inner forces slowly lift or lower them.

When They Broke the Law of the Coasts . . .

British engineers designed and built the Yemen port of Hodeida at the tip of a seven-mile sand-spit. Soon only scraps of iron showed above the engulfing sand. The Yemen Government asked the Soviet Union to redesign the port. The Zenkovich theory ruled out the spit site. The new port, built by Soviet engineers in a lagoon, has now functioned well for eight years.

The Annual Kikhnu-Rukhnu Festival—a sort of fisherfolk's Olympics—was instituted in 1965.

KIKHNU-RUKHNU
1967

ISLAND RIVALS

from the weekly NEDELYA

A girl's smile is probably dearer to the champion than publicity.
Right, bottom: Knitting is the male prerogative when it comes to fishing nets. And the honour of making the final preparations for the feast is also given to men—they are bringing in the traditional beer mug handle.

In the Baltic Sea, just off the coast of Estonia, there are two small islands, Rukbnu and Kikhnu.

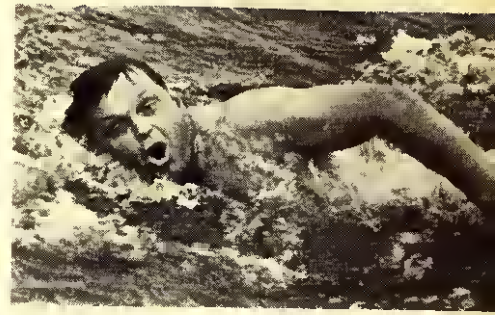
Both are inhabited by fisherfolk, and in both cases the islanders are convinced that their island is superior to the other. It bas better bospitals, roads, and shops, its houses are nicer and have better-kept gardens, its people are more cultured, reading more magazines and newspapers, and seeing more films. And, of course, in each case the fishermen of tbe island are better than tbeir neighbours at traditional crafts.

A couple of years ago they decided to stop boasting to eacb other and get down to brass tacks. The result is an annual competition in almost everything you can think of.

Points are given throughout the year for all kinds of achievements in the everyday life of each island, and in addition there are sports events, craft contests, amateur talent competitions, and song-and-dance festivals.

Apart from sports on tbe Olympic programme the Kikhnu-Rukhnu meets include such traditional ones as tug-of-war, rowing in fishing boats and swimming in tbe sea.

The craft contests invariably draw huge crowds—sometimes well over



2,000. Fishermen have to mend a net, weave part of a new one, and show their skill in other ways.

The women count for quite a lot in this inter-island rivalry—there are many events in which they can win points for their side.

Their participation, of course, makes the whole thing far more colourful. Almost all of them wear national costume, woven, dyed and made up by themselves—dyes are concocted on the spot from herbs which are plentiful on the islands. No two skirts, blouses or pairs of stockings are alike, for they all vary with the fertile imagination of the maker.

On the final day, the games continue far into the night. An old fishing boat is burnt, in accordance with an old tradition, a rich dark velvety beer is brewed, and the proceedings culminate in a national dance round the bonfire. The next day the whole thing starts again, and goes on for another year.

So far honours are even, which gives added piquancy to the contest.

KIKHNU-RUKHNU

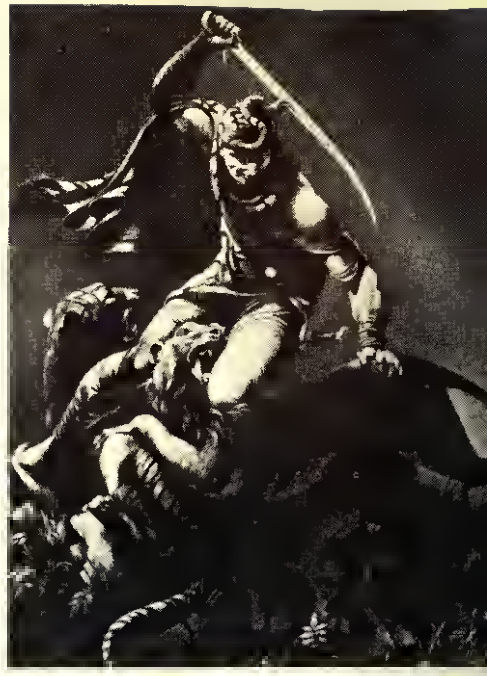
1967

The spinning wheel is an indispensable prop at the choir contest. It is only on such occasions that this survival appears on the scene to produce some dozen yards of yarn. Women do not participate in the tug-of-war but they excel at rowing.

GEORGIA'S KNIGHT OF THE PEN

by Pavel ANTOKOLSKY

from the weekly LITERATURNAYA ROSSIYA



It is commonly believed that knightly romances first appeared in Western Europe. However, the poet Pavel Antokolsky argues that they originated in Georgia, in the Transcaucasus.

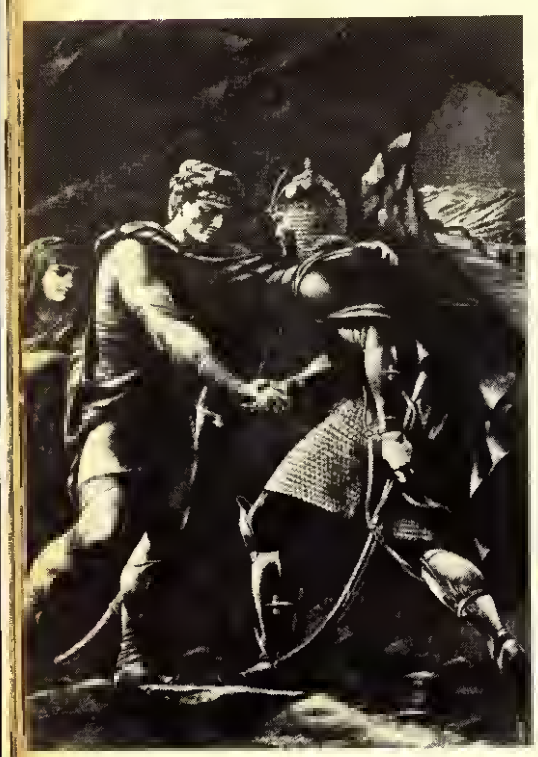
For 800 years the name of Shota Rustaveli has rung proudly on the lips of the Georgian people. For 800 years his epic poem *Knight in a Tiger's Skin* has had a tremendous influence on the minds and hearts of his countrymen. Throughout the centuries a richly bound and ornamented copy of the bard's work has formed the proudest jewel of a bride's dowry. To this day, any Georgian, regardless of background, can recite quatrain after quatrain memorized in childhood. The poem is indeed part and parcel of the national culture of Georgia, of every generation.

Rustaveli's life is shrouded in mystery. Records which have survived indicate that he came from a noble family and was probably chancellor of the exchequer in the reign of Queen Thamar. His fame rests solely on his epic poem.

Since the 12th century the world has undergone drastic changes. The feudal society of the poet's time is no more. Through the years the Transcaucasus was more than once the scene of bloodshed and battle. Generations of Georgian youths were killed in wars or died in captivity.

So history was made. But as it marched on, amidst the backbreaking toil and rare holidays, the births, weddings and wakes of the wine-growers and sheep-herders of Kakhe-

GEORGIA'S KNIGHT OF THE PEN



tia and Kartalinia, the resonant verses of this great poem rang out, resurrecting time and again the colourful, fahulous, unforgettable past.

This was indeed a miracle, the miracle of a legend that was reborn with every generation. But if we turn from legend to the harsh historical truths of 12th-century Georgia and the feudal relations reflected in the poem, it blazes forth as a unique specimen of early knightly romance, possessing many clearly distinct characteristic features of this poetic genre. The extraordinary adventures of valiant knights, their allegiance to suzerains, loyalty to friendship, hrotherhood, pledges, the knightly code of honour, and last, hut definitely not least, the exalted faithful love of each to his one-and-only beloved—all epitomize the spirit of romantic chivalry.

What nourished these lofty morals and sentiments? In the famous introductory stanzas, Rustaveli sets out his basic creed, that of love, of the possihility of different kinds of love, and of his allegiance to the perfect love, so characteristic of his heroes.

It comes as a surprise to find the source of chivalrous adoration for one's lady springing from Georgian soil. We had thought the home of this genre to he Western Europe, so firmly is it ensconced in Germanic and English literature.

Recall the crusaders. They despoiled the Middle East of everything they could lay hands on, hringing back to their gloomy castles all the dazzling riches of the east—silks, musk, pearls, spices. But at the same

When the 800th anniversary of the birth of the Georgian poet Shota Rustaveli was celebrated in 1966, the Khudozhestvennaya Literatura *Publishing House brought out a new edition of his epic* Knight in a Tiger Skin, *designed and illustrated by the Georgian artist Levan Tsutskiridze. While the illustrations exhibit a certain degree of stylization, having a flavour of the old Georgian bas-reliefs, they are at the same time thoroughly modern. They form a highly polished graphic cycle capable of standing on its own. Here we present a selection from the cycle.*

time they encountered other riches which can be neither bought nor sold in any bazaar—the lofty, though stern, oriental moral code, the lyricism of tbe Arab soul. Thus emerged the idea of chivalrous devotion to tbe lady of one's beart—something quite alien to feudal castle and family. How many times has the unnamed shadow of the madly and bopelessly enamoured youth flitted through western poetry!

Some 500 years after Rustaveli died, the European knightly romance sang its swansong or rather a parody of it. The day arrived when the Knight of the Doleful Countenance took off everything but his shirt, slapped himself and ate only roots, all in honour of the peerless Dulcinea, a very ordinary farm-girl from a neighbouring village.

Tbe madness of Don Quixote spelled the sunset of knightly service to one's beloved, the sunset of chivalrous romance. So can one trace or imagine the migration from east to west of a poetic image which emerging from the star-lit medieval nigbt beyond tbe Caucasian mountain ranges, reached tbe peaks of the Sierra Morena beneath the blazing midday sun of the Renaissance.

Though Cervantes and Rustaveli are as contrasting as poetry and prose, as lyricism and satire, closer scrutiny will reveal kinsbip, if not resemblance. This is the affinity of two noble bearts, of two lofty exponents of the meaning of life, of that vitality which to this day causes young hearts to throb with stronger loves and hates.

ON GUARD AGAINST TSUNAMI

by Boris KLAVDIN
Condensed from the magazine ZNANIYE-SILA

If the ocean suddenly rams another monster billow against our Pacific coast an automatic "sentry" invented in Moscow will issue early warnings.

Natasha Smirnova, who works in the station set up on the Kuriles to give early warnings of these tidal waves.

"Suddenly I saw a wooden structure—wasbed away by tbe ocean after a landslide caused by an earthquake—quickly floating coastwards against the wind. This could only be a tsunami, I decided. There was no time to think. About 70 yards away there was a boat pulled up on shore. I ran toward it, already knee-deep in water, so fast was it coming in. I had barely jumped in before the wave caught the boat and sent it racing in the direction of the hills. In minutes the township ceased to exist.

"Just when I thought the disaster had run its course, I saw a huge wall of water advancing toward the bay. Ten yards high and snow-white

This is how the Lithuanian artist Mikalaius Churlionis saw the tsunami in his painting "Sea Sonata. Finale" (1908).

capped, that second wave was much higher than the first, and of more account; it was running much faster. As it drew close I realized that its white crest, which from a distance looked like snow, was a great mass of water dust and foam. This was the end, I thought. This was death . . ."

Happily, engineer L. I. Dymchenko who wrote these lines, is alive. The inhabitants of the south-eastern coast of Kamchatka and the Kuriles (islands off the Soviet Far Eastern coast) survived that huge tidal wave of November 5, 1952. But the populated centres on the seafront were swept away. The worst hit was the town of Severo-Kurilsk on Paramushir Island. The waves destroyed homes and tore up paving stones.

A tsunami comes, on the average, once in eight years. Most of the world's tidal waves of the past 25 centuries—over 300—have been registered in the Pacific. This is not surprising: tsunamis are caused by submarine earthquakes which are particularly common in the Pacific. When Krakatau erupted in 1883, the waves rose 35 yards high. They travelled round the globe, reaching as far as Alaska and the Panama Isthmus, India and the Cape of Good Hope and ravaged the coasts of Sumatra and Java, taking a toll of 36,000 lives.

Such a mountain of water often drives in front of it a cushion of air which blasts open doors and windows. When a 30-yard master wave carried thousands of victims into the ocean during the tragic Lisbon earthquake of 1755, the Portuguese monks referred to it as the "breath of God".

An earthquake produces a rapid sagging of a vast section of the ocean floor. The water quickly fills the depression and keeps on coming so that a bulge emerges above the pit, just as it does when the bottom suddenly rises or a seabed volcano erupts.

That mound of water sends rings of sloping waves spreading in every direction. As has been demonstrated by the famous French mathematician Lagrange, the deeper the ocean under their centre the faster these waves roll, their speed reaching up to 500 miles an hour, hundreds of times faster than ordinary waves.

These millions of tons of water, glowing with phosphorescent plankton and covered with a blanket of foam, present a terrifying sight.

Man is not yet able to halt the raging elements, and the only means of avoiding loss of life is to sound timely warnings. Nothing would seem to be simpler. Resilient oscillations set off by the trembling ocean bottom spread faster than the waves, reaching the coast within minutes if not seconds, where they are recorded by seismographs. An earthquake epicentre can be spotted very quickly. But that is not enough for a danger signal. Only one underwater tremor in a hundred is followed by a tidal wave. The readings of seismic devices alone are never a definite indication of a tsunami.

Soviet scientists were confronted with the tsunami prohlem comparatively recently. The extensive development of eastern Kamchatka and the Kuriles, where timely danger signals are more vital than anywhere else, hegan after World War II. While the ocean wave follows four or five hours after the seismic signals in Hawaii, the gap is only a quarter of an hour in the Far East, where earthquake epicentres lie close to the shore.

The all-crushing ocean wave, before it pounds the coast, seods out heralds. Not long heforehand, the sea-level hegins to fall and rise repeatedly. This initial agitation of the surface, which presents no danger, has heen used as a kind of tsunami indicator hy I. M. Shenderovich, the head of a laboratory of the Research Institute for Hydrometeorological Instruments, and L. S. Klehan, a designer, in Moscow. Their automatic "sentry"—the long sought-after precious addition to the seismograph—keeps a sharp eye on the ocean surface.

This is how the "sentry" works: The ocean surface is in constant motion: it moves quickly (the usual waves) or slowly (the tides). The speeds hefore the tsunami are intermediate. The "sentry" has heen attuoed to these.

The vital component is a huoy, whose movements are transferred to a recording pen. At any sign of alarm its electronic instruments switch on a siren.

The "sentry" must not he affected hy disturhances so it is sunk into a special well dug in a sandhank and linked with the ocean hy pipes—the principle of interconnected vessels. The walls of the well protect it from errors in any weather—in a raging storm, with its thundering hreakers, and in freezing cold when the coast is assailed hy huge and heavy ice-floes. The ocean's uoderwater currents do not penetrate into the well. But at the slightest threat of a tsunami the sensitive instrument will sound the alarm.

Naturally, the existing equipment and techniques require much improvement. Japan, where many thousands of people have heeo engulfed hy the giant waves, has a whole institute—so far the only one io the world—developing new ways to comhat such natural calamities. The Soviet tsunami service was estahlished in 1952, when Severo-Kurilsk was swept out of existence. It sent out timely warnings of the huge hreakers which smashed against the shores of the Kuriles in 1960 and 1963. The 1946 tsunami took 170 lives in Hawaii hut those of 1952, 1960 and 1963 in the Kuriles caused no human casualties.

In Septemher 1967 the Soviet Union launched, as part of its extensive seismic programme, the homhing of two areas of the Pacific.

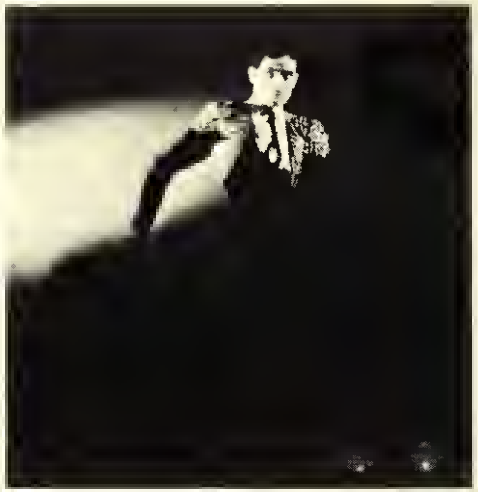
The resulting tremors of the ocean floor (which did not affect the security of nearhy populated centres) have heen registered hy instruments. When processed, the knowledge thus gained will he another step forward in learning to predict earthquakes and tsuoamis.

It has been said of Mahmoud Esambaev that he is the very essence of the dance.

He has danced in Moscow and Paris, Buenos Aires and Odessa, Riga and Tahiti, Sverdlovsk and the Philippines. He dances to music and without it, on the stage and in the circus arena, in the corridor of a hotel and in a snow-covered street, before glittering audiences and before crowds of people who have no tickets.

Now 43, he has been known as a dancer for only ten years.

BORN TO DANCE



by Victor Bukhanov

from Literaturnaya Rossyia

Shame and Disgrace

He was five or six and proud of his ahility to count on his fingers the nine sheep and one goat in his care. Every day he drove them on to the Caucasian mountain slopes and watchfully counted and recounted. And then one day lamhs appeared and he was no longer proud of his counting.

His father was renowned in the village for his determination. Once he had worked a plot of land he considered his own, hut it was suddenly taken away from him. He did everything he could to get it hack, even petitioning Ministers and the Czar. Illiterate as he was, he nevertheless spent what little family money there

was on the fruitless preparation of complex legal papers. This same determination and stuhhornness served him well during the Civil War when he won fame as a Red partisan.

"Mahmoud," he told his son, "there's nothing more precious in this world than justice. You'll be a judge."

"And for a long time I thought I would he a judge," recalls Esambaev. "I was convinced of it until I saw the circus."

When he was nine, his family moved to Grozny, now capital of the Checheno-Ingush Autonomous Republic. Mahmoud would wander along the streets, watching all the lights go on at once. Suddenly he would kick the hat off his head, without altering his pace at all. The young boy was very agile.

Mahmoud knew he was going to be a dancer, but his father refused to accept it. He would rock his head in his hands and shout: "No Chechen has ever earned his bread hy entertaining others. You'll disgrace our family. Oh, what a disgrace to the 1shkhoev family!"

Then the stubhorn old man would raise his whip, and the stubborn young boy would dutifully hare his back.

Mahmoud was apprenticed to a baker. He baked *pirozhki*—and kept on dancing. At 12 he was taken on by a small dancing company, and when he was 16, while on tour in the Caucasian town of Mineralnye Vody, he was noticed hy an operetta director who asked him to dance in his theatre. This young shepherd from the mountains hegan to learn to wear costumes, apply make-up and understand the language of the theatre. It was a period of self-education.

When the war broke out, Mahmoud went to the front with a concert hrigade. He entertained the soldiers with clever dance parodies performed on the stump of a tree or any other makeshift platform.

One Hundred Sons for the Stage

Mahmoud was working at the opera theatre in Alma-Ata, capital of Kazakhstan, when he received a postcard from his father who was living in Kirghizia. Mahmoud immediately packed up and left to join him.

He was accepted hy the theatre in Frunze, capital of Kirghizia, and his father began to come more and more often to see him perform.

"Mahmoud," he once asked his son, "why do the others get flowers and you do not?" Then one evening he hrought a bouquet to the theatre himself. Shortly hefore his death the old man told his son, "You were right, Mahmoud. You make people happy when you dance. If I had a hundred sons, I would have them all become dancers."

Recognition

Mahmoud hecame famous in 1957 during the Moscow Youth Festival. He stayed with the family of an old friend, Lev Komarovsky, a hallet master and one of the many people who helped Esambaev become the dancer he is today. During the pre-

Caucasian dance "Lezghinka"

festival months, Eleonora Grikurova choreographed "Thc Golden God" for him. Tamara Zeifert worked out a dance with knives, while Alexandra Grodneva and Marietta Alberingo helped him with a Spanish dance. Marietta told him, "Mahmoud, you were born to dance in Castille and Aragon."

Within seven months Mahmoud won two gold medals—in the All-Union and International Competitions. Recognition had finally come. And flowers.

A Hard Worker

In the last ten years Esambaev has spent 30,000 hours dancing, at a conservative estimate. He gives about 28 performances a month.

As with most performers of great talent, he is seldom satisfied with his work. He never ceases to practise, polish and perfect. He feels a deep responsibility to his audiences. Once I watched him dance on an evening when he was running a high temperature. He had insisted on going on stage, unable to disappoint the one and a half thousand people who had come to see him.

Esambaev has a youthfully slender figure, and some of his female worshippers envy him his $28\frac{1}{2}$ inch waist.

As an artist Esamhaev does not spare himself. I was watching him at one rehearsal wben he was depicting a blind man. For six and a half minutes he did not blink his eyes, and it made one feel as if the blind eyes of all the hlind in the world had been gathered into his eyes. Mahmoud on

one occasion said with a touch of bravado: "A pleasant life is all right for most people, but it's absolutely wrong for a dancer."

The Golden God of the Dance

Esambaev is a master of folk dances, whether from the banks of the River Terek or the Amazon. He could have become a classical ballet dancer, but it is lucky that he didn't, for he is really in his element in folk and character dances. It is as difficult to describe a dance as it is to describe music. I cao only try.

"The Golden God" is an Indian dance. It is a tale of rain, of the River Ganges, of the blue god of night and the golden god of day. It is a story about eternity. One can understand something about Buddhism by watching this dance.

This is not as odd as it may sound. Esambaev portrays absolute quiet, the alternation of day and night. There follows a bacchanalia of the raging elements, and he practically disappears from view, like the spokes of a rapidly spinning wheel.

Then he gradually slows down, and takes up the pose of a sitting god. The transition from movement to immobility takes place imperceptibly—it is like watching the minute hand of a clock. Suddenly one realizes that he is sitting in absolute stillness with his eyes closed.

Another well-known number is a Spanish dance. When Esambaev emerges from the wings with a red cape, one almost expects the bull to charge out behind him.

A dance that reveals his talents to the full is the Brazilian-Indian dance, "Makumba," meaning "Invocation." The people are haunted by an evil spirit, from which they may be liberated only by the wizard. The latter dons feathers, the skins of an anaconda and wildcats and smears his face with blood. He assumes the aspect of the evil spirit which is deceived by the likeness and enters the body of the wizard. At that moment he goes mad and falls dead in a frenzy of dancing. As he dies, the evil spirit too, perishes. The people are free. When he did the "Makumba" in Brazil, critics wrote that Esambaev was kinsman to the god of the dance.

One music critic has described Esambaev as "golden hands." I think I would call them silken hands, for when he dances, they flutter like ribbons.

Esambaev is an excellent actor. He sings with his eyes while telling stories with his body, bringing it home to one very forcibly how closely the various art forms are related to one another and that the distance between poetry and the dance is only a step.

He knows he will not be able to dance forever. At present he is in top form. "I have only sipped half my cup," he says. But when the time comes for him to retire from the stage, it will not mean farewell to his beloved art. For he will be teaching the children of his native Chechen-Ingush land.

Indian dance. More photographs overleaf.

Bashkirian dance

Brazilian ritual dance "Makumba"

Sweet tempered Crocodiles

It had long been Boris Zarkov's ambition to prove that crocodiles can be tamed. On his retirement from the circus seven years ago, he bought two fearsome monsters, Ango and Chango, and began to work with them. The crocodiles at first hissed menacingly and tried to strike the tamer with their heavy tails or sink their sharp teeth into him.

Finally Ango and Chango yielded to kindness, and accepted friendly relations with their tamer and with his dog, Rumba. Rumba is now confident enough to sit begging on Ango's back and take a lump of sugar from Chango's nose.

Zarkov calmly puts his arm into the crocodiles' jaws.

The circus pensioner and his pets live in the city of Kuibyshev.

from the newspaper
Lesnaya Promyshlennost
(Timber Industry)

YELLOW SAND

by Arkadi ARKANOV

"Let's sit here," she said.

"No, let's go and sit on the bench he said. "There's sand there. I like yellow sand."

They sat on a little hench, almost touching each other. He hegan to draw something in the yellow sand with a stick.

"What are you drawing?" she asked after watching him for a wbile.

"You."

"It doesn't look like me."

"So what?"

It was rather difficult for him to draw. The dry sand crumhled too quickly.

"Look, a May-bug," she said.

"That's a she May-bug."

"How do you know?"

"The male doesn't fly so low."

At that moment a gust of wind obliterated her image in the yellow sand.

"Let's come here again tomorrow," she said, "You are coming again, aren't you? Promise?"

"I promise."

But he didn't come the next day. Nor the day after that. Two days. A month. He never came again. She often sat alone on the little hench and wondered why he had never come back.

She didn't know that his parents had transferred him to another kindergarten.

* * *

FRUIT GROWING FOR HEALTH

from UCHITELSKAYA GAZETA

A new trend in fruit growing aims to develop a preventive fruit-and-berry pharmacopoeia.

Many fruits have been found to contain substances capable of preventing and, under certain conditions, of curing cardiovascular diseases—the most widespread ailments. Some varieties of apples, rowans and blackcurrants contain compounds that can bring high blood pressure down to normal. Cbokeberries (aronia) are also effective in treating hypertension. Haws contain substances which have a mild effect in normalizing heart activity.

Hips and rowans provide vitamins whicb prevent scurvy, deterioration of eyesight and muscular dystrophia. Search is under way for plants which accumulate iodine.

But the scope of fruit-and-berry pharmacology is much wider than treating diseases resulting from vitamin and microelement deficiency. Large amounts of bactericides have been found in raspberries, strawberries, grapes and some varieties of apples.

Some of these substances are essential oils, others are polyphenols. The most interesting are compounds which arrest the growth of bacteria that cause gastro-intestinal diseases.

Drawing by O. KORNEV

—Our hypnotizer is always in a hurry.

QUICK TO MAKE, DELICIOUS TO EAT

Some Dishes from Latvia

SIGULDA SALAD

Ingredients for two portions

½ glass rice
2 tbs. sour cream
1 small apple
2 small tomatoes
1 ridge cucumber
parsley and dill according to taste

Rinse boiled rice and mix in finely chopped parsley and dill. Slice tomatoes and apple and cut peeled cucumber into strips.

Tip rice into a salad bowl, arrange tomato, apple and cucumber round the edge, and before serving top with sour cream.

* * *

SALAD SURPRISE

Ingredients for two portions

2 boiled beetroots
2 apples
12 walnuts
4 tbs. mayonnaise
parsley and dill according to taste

Coarsely grate boiled beetroot and peeled apple, mince nuts, mix in a salad bowl and add mayonnaise.

Before serving sprinkle with parsley and dill.

* * *

HOUSEWIFE'S SOUP

Ingredients for two portions

1½lb. carrots, potatoes, cabbage, onions
2-3 glasses meat stock
3tbs. sour cream
or
½ glass cream

Prepare vegetables for cooking, boil in salted water. Sieve or pass through colander. Add meat stock to make a thickisb soup and bring to the boil. Add sour cream or cream—if cream, bring soup to the boil again. Serve with croutons or rusks and sprinkle with finely cbopped parsley and dill.

BREAD SOUP

Ingredients for two portions

3 large pieces of toasted rye bread
2 oz. dried fruit (prunes, raisins, etc.)
or
3-4 fresh apples
4 tbs. sugar
Pinch of cinnamon
A few drops of citric acid
$\frac{1}{3}$ glass cream

Pour boiling water on well-dried black bread, cover and leave to swell. Force soaked bread through a colander.

Stew dried fruit or fresh applies separately. Add sugar.

Add stewed fruit to bread pulp so that the mixture is of a running consistency.

Add cinnamon and citric acid and serve with whipped cream.

Before whipping cream, chill thoroughly—if possible, keep in refrigerator for 24 hours. When beating, add sugar.

* * *

STEAK AND ONION
(Latvian style)

Ingredients for one portion

4 oz. beef (sirloin or rump steak)
2 tbs. flour
2 medium onions
2-3 tbs. sour cream
salt to taste

Beat the piece of beef into an oval shape, dust with flour, sprinkle with salt and fry on both sides in a hot pan (on a moderate flame). When the meat is nicely browned, cover the pan with a lid and leave for ten minutes on a low gas.

Slice onions and fry until golden brown. Sprinkle with salt, place in a deep pan, add sour cream and bring to the boil.

Before serving the meat cover with onion sauce. Serve with fried or boiled potatoes.

* * *

RIGA CUTLET

Ingredients for one portion

5-6 oz. loin of pork
1 egg
2 tbs. milk
2 tbs. breadcrumbs
parsley and dill to taste
salt to taste

Beat out pork (with bone) until thin, salt and sprinkle with finely chopped parsley and dill.

Beat up egg yolk and milk, add salt, fry with lid on or cook in the oven.

Allow egg to cool, then place in the centre of the pork. Fold over meat so that the edge without bone is uppermost, brush with white of egg and dip in breadcrumbs. Fry until done, then place in low oven for 5-10 minutes.

Serve with any vegetable you like, but include fresh or salted cucumber. The cutlet looks more appetizing if melted butter is poured over it just before serving.

Typical of the dishes on the menu of a Latvian restaurant:—Latvian assortment, "housewife's soup", pancakes with cottage cheese, hors d'oeuvres decorated with butter.

THE SECRET OF DANAË

by Konstantin IVANOV
from the magazine SMENA

After more than 300 years some of Remhrandt's paintings still have surprises for us.

One of these, the famous "Danaë," has been on view at the Leningrad Hermitage Museum for over a century. It shows a young woman, Danaë, lying on a couch bathed in sunlight, one of her arms stretched towards the sun.

In the shadow above her head hovers a traditional cupid and on the left an old serving woman is looking out from behind a curtain.

Much has been written ahout this painting, and yet a number of elementary questions remained unanswered for a long time. When exactly was "Danaë" painted? Who was the model? How does one explain the difference in style and colouring in certain places?

The answers have finally been provided by X-rays and optical microscopy. The examination was carried out hy L. Siverskov, head of the Physical X-ray Laboratory at the Hermitage.

It was found that Remhrandt had two shots at the "Danaë." The first time was in 1636. Beneath the present head of Danaë X-rays reveal an earlier one modelled on Remhrandt's first wife Saskia.

X-raying also showed that the servant's head was originally in a different position, much further to the left and depicted in strict profile.

About ten years later Remhrandt returned to the painting. This time the head of Danaë was modelled after his second wife Hedrickje. Now art historians have estahlished fairly conclusively that the painting was completed in 1645.

It is noteworthy that the style of the first version is somewhat cold and academic, while the overpainting has the warm golden tones so characteristic of the later Rembrandt.

FRESH-FROZEN FILCHER

from the newspaper Komsomolskaya Pravda

The militia were hurriedly summoned one night by an excited watchman who discovered that a provisions store had been raided.

When detectives arrived they saw that the store had been ransacked, groceries were all over the place and the till had been hroken open.

As they were making notes for their report, one of the men opened the refrigerator. Inside, curled up with the hams and sausages, lay a man fast asleep.

When the militia hauled him out, he was hlue with cold and could hardly move his lips.

Later the man admitted that he had broken into the shop while drunk, and after a successful foray had lain down for a little nap in the icebox.

If the militia had not been so prompt, the burglar would not have lived to testify.

THE '68 LOOK

LEFT

Op with a dash of trad—the folksy element comes through clearly, Nelli Arshavskaya having been influenced here by the old Russian wooden folk toys. She rather fancies these two ensembles for après-ski, but does not insist that this is the only occasion on which they can be worn.

RIGHT

Galina Gagarina has used heavy metallic brocade for the evening dress on the right, heightening the glitter effect with gold and silver spangles. For the model in front, Irina Evsejeneva has chosen crêpe-de-chine and pearl-embroidered lace.

by Vladimir MARAMZIN

I DON'T KNOW HOW I MADE IT

What hazards I had to endure in early childhood, what hazards all children go through until they learn not to be afraid of anything.

They tossed me up to the ceiling and caught me as I fell. They might have missed. But they didn't.

They held me by the hands and swung me round and round. They very nearly let go of me. Who knows where I might have flown off to if they had? Then again, they might have pulled my arms out of their sockets. But they didn't.

They stood me on my head, just touching my feet to keep me steady. That could have dislocated my neck. But it didn't.

They made me bend down and put my hands between my legs. Then they gave my arms a sudden pull, seeming to jerk me inside out like a shirt. I would be in a vertical position even before my feet touched the ground. I dare not think what might have happened if something had gone wrong.

Then my mother took me to the river to give me my first lesson in swimming. She calmly carried me out to the middle, in spite of all my struggles.

"Don't be afraid," she declared, "it's the only way to learn." Then she threw me in, saying, "You'll be swimming in no time at all." However, in no time at all I was not swimming, but flailing around and sinking.

"Help!" I yelled.

But nobody lent a hand. They just stood there and laughed.

"I'm drowning!" I gasped, coming up for the last time.

"That's funny," my mother observed when they had pumped the water out of me, "I read somewhere that they teach them to swim that way. He's just stubborn, I suppose. He only wants to annoy me. That's what it is . . ."

How I reached my present age when nothing can frighten me, I don't know. Perhaps my mother was right. I'm just stubborn!

from SEMYA I SHKOLA

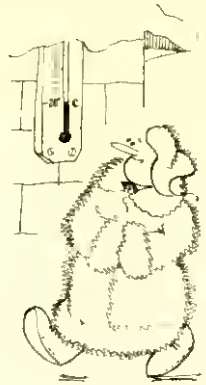
RUSSIAN MADE EASY

Lesson Four (УРОК ЧЕТВЕРТЫЙ)

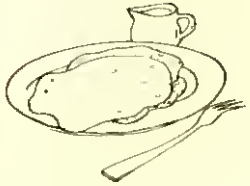
Sasha Ivanov:	А, Джон, здравствуйте!*	a-a dzhon zdrástvuitye
	Oh, John. Hello!	Oh, hello, John!
John Smith:	Познакомьтесь, это	poznakóm″tes″ éto
	Get acquainted. This	Meet my friend
	мой друг Игорь.	moi drúg ígor″.
	my friend Igor.	Igor.
Ivanov:	Очень рад.	óchen″ rad.
	Very glad.	Glad to meet you.
Smith:	На улице мороз?	na úlitse moróz?
	On street frost?	Is it very cold outside?

* See the Russian alphabet (Cyrillic letters) at the end of this lesson.

Sasha:	Мороз сильный. Двадцать Frost strong. Twenty градусов ниже нуля. degrees below zero.	moróz sílnyi dvátsat' Yes, it's very cold. Twenty grádusov nízhe nulyá. degrees below zero (Centigrade).
Igor:	Ничего. Это (It's) nothing. This русская зима. Russian winter.	Nichevó. Éto It's all right. This is the rúskaya zimá. Russian winter.



Smith:		
У нас сегодня блины. At us today pancakes		U nás sevódnya blinÍ. We have pancakes today
Садитесь. Вот икра Sit down. Here caviar		Sadítes'. Vót ikrá Sit down, please. Help yourself
селёдка. herring.		selyódka. to caviar, herring.



Ivanov:	Благодарю. Это очень Thanks. It's most вкусно. delicious.	Blagodaryú éto óchen' Thank you very much. vkusno. It's all most delicious.
Igor:	Хотите водки? Или коньяк? Want vodka? Or cognac?	khotítye vódki? íli Care for some vodka, or konyák? cognac?
Ivanov:	Спасибо, пожалуйста водки. Thanks. Please vodka.	spasíbo pozháluista vodki Vodka, please.
Smith:	Выпьем за встречу (Let's) drink for meeting и за ваше здоровье. and for your health.	vÍp'yem za vstréchu Let's drink to our first i za váshe zdoróvye. meeting and to your health.
Ivanov:	Выпьем "на ты" (Let's) drink "on thee"*	vÍp'yem "na tÍ" Let's drink this glass and from now on let's call each other "tI", not "vI".
	и поцелуемся. and kiss (each other).	i potselúyemsya. and then let's pledge our friendship with a kiss.
Smith:	Хорошо. Теперь мы друзья. Good. Now we friends.	Khoroshó. Tyepér' mI Good. And now we are druz'yá. friends.

* "Ты" (tI) is a familiar form of address used in conversation with relatives and close friends. "Выпить на ты" (vÍpit' na tI) is a common phrase denoting a desire to "break the ice" in relations between two or more people. After that they call each other "Ты" (thou) and not "Вы" (you), which is a more official form of address.

Read the text paying special attention to words in bold type

Друзья **сидят**, Friends sit	Druz'yá sidyát The friends are sitting

пьют вино и	p″yút vinó i
drink wine and	drinking wine and
курят сигареты	kúryat sigarétI.
smoke cigarettes.	smoking cigarettes.
Саша говорит:	Sásha govorít:
Sasha says:	Sasha says:
"У вас хорошая	"U vás khoróshaya
"At you good	"You have a good
квартира, вкусный	kvartíra, vkúsnIı
flat, delicious	flat, a tasty
обед и хорошее	obéd i khorósheye
dinner and good	dinner and delicious
вино."	vinó."
wine."	wine."
"Спасибо, вы очень	"Spasíbo, vÍ óchen″
"Thanks, you very	"Thanks, it's very
любезны", отвечает	lyubéznI," otvecháyet
kind," answers	nice of you to say that,"
хозяин.	khozyáin.
host.	answers the host.

Note the two main models of verb conjugation

Model 1

Я (I)	отвеча (answer)	-ю
Ты (thou)		-ешь
Он (he)		-ет
Она (she)		-ет
Мы (we)	отвеча	-ем
Вы (you)		-ете
Они (they)		-ют

Model 2

Я	говор (speak)	-ю
Ты		-ишь
Он		-ит
Она		-ит
Мы	говор	-им
Вы		-ите
Они		-ят

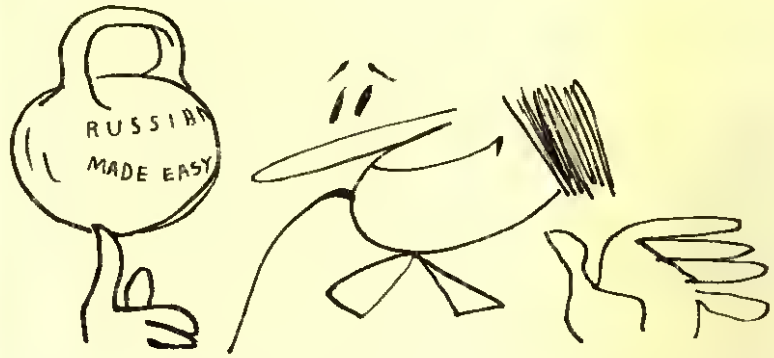
Examples

пить (to drink)

Я пью	Мы пьём
Ты пьёшь	Вы пьёте
Он, Она	пьёт
Они пьют	

сидеть (to sit)

Я сижу	Мы сидим
Ты сидишь	Вы сидите
Он, Она	сидит
Они сидят	

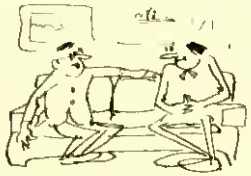


If you got that one, you are over the hump.

"Что ОН делаЕТ?"	"Что ОНИ делаЮТ?"
What is he doing?	What are they doing?
"ОН сидИТ, курИТ и пьЁТ вино."	"ОНИ сидЯТ, курЯТ и пьЮТ вино."
He's sitting, smoking and drinking wine.	They are sitting, smoking and drinking wine.
"Что ТЫ делаЕШЬ?"	
"Я сиЖУ, курЮ и пьЮ вино."	
"Что ВЫ делаЕТЕ?"	"Что ВЫ делаЕТЕ?"
"Я сижУ, курЮ и пьЮ вино".	"МЫ сидИМ, курИМ и пьЕМ вино."

Answer the following questions. Check with the key.

1 Что ои делает?



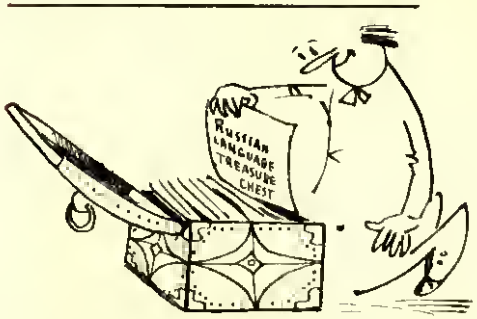
2 Что оин делают?

3 Что ты делаешь?

4 Что оиа делает?

5 Что вы делаете?

6 Что оии делают?



Key
1. Ои сидит.
2. Оии сидят.
3. Я курю
4. Она курит.
5. Мы сидим.
6. Они сидят, курят и пьют.

Dobró pozhálovat″

A Russian host greets his guests with "Добро пожаловать" which is
Good come in

búd″te kak dóma
roughly equivalent to the English "welcome". Then follows будьте как дома
(Make yourself at home) be like home

An unexpected, undesired visitor is often referred to as
nezvánɪi gost″ khúzhe tatárina.
иезваиный гость хуже татариа. This saying comes from the 13–14th
uninvited guest worse (than) tartar
centuries when Russia was under Mongol-Tartar rule.

V gostyákh khoroshó a domá lúchshe
Another popular saying is В гостях хорошо, а дома лучше
At guests' well but at home better
which corresponds to "East or west—home is best".

Nyé zhityó a máslenitsa
Не житьё, а масленица
Not life but Shrovetide
(Not ordinary life but a real feast)

"Маслеиица" *comes from the word "butter". This traditional Russian holiday is celebrated in February or March when pancakes, butter, caviar, herring, sour cream and vodka are served at dinner and supper.*

VOCABULARY (СЛОВАРЬ)

благодарить	*blogodarít″*	to thank
блин	*blin*	pancake
ваш	*vash*	yours
внно	*vinó*	wine
вкусный	*vkúsnɪi*	delicious, tasty
вот	*vot*	here (help yourself)
встреча	*vstrécha*	meeting
говорить	*govorít″*	to speak
градус	*grádus*	degree
двадцать	*dvátsat″*	twenty
делать	*délat″*	to do, to make
друг	*drug*	friend
здоровье	*zdoróv″ye*	health
зима	*zimá*	winter
икра	*ikrá*	caviar
квартнра	*kvartíra*	flat, apartment
краснвый	*krasívɪi*	beautiful
курить	*kurít″*	to smoke
(он) любезеи	(*on*) *lyubézen*	he is kind, obliging
(вы очень любезиы)		it's very kind of you
мороз	*moróz*	frost
обед	*obéd*	dinner
отвечать	*otvechát″*	to answer
очень	*ochen″*	very
пить	*pit″*	to drink
погода	*pogódo*	weather
позиакомиться	*poznakómit″sya*	to get acquainted
прекрасиый	*prekrásnɪi*	beautiful
рад	*rad*	(to be) glad
садиться	*sadít″sya*	to sit (down)
селёдка	*selyódka*	herring
ты	*tɪ*	you (diminutive)
хозяии	*khozyáin*	host

THE RUSSIAN VOCABULARY

Symbol	English transcription	pronunciation equivalent	Symbol	English transcription	pronunciation equivalent
Аа	(*a*)	father	Сс	(*s*)	speak
Бб	(*b*)	book	Тт	(*t*)	table
Вв	(*v*)	vote	Уу	(*u*)	rule
Гг	(*g*)	good	Фф	(*f*)	ford
Дд	(*d*)	day	Хх	(*kh-hard*)	loch
Ее	(*ye*)	yes	Цц	(*ts*)	lots
Ёё	(*yo*)	yonder	Чч	(*ch*)	lunch
Жж	(*zh*)	pleasure, regime	Шш	(*sh*)	short
Зз	(*z*)	zone	Щщ	(*shch*)	no equiv.*
Ии	(*i*)	meat	Ъъ	(′)	no equiv.**
Йй	(ɪ)	boy, play	Ыы	(*ɪ*)	no equiv.***
Кк	(*k*)	kind	Ьь	(″)	soft sound****
Лл	(*l*)	light	Ээ	(*e*)	men*****
Мм	(*m*)	man	Юю	(*yu*)	university
Нн	(*n*)	note	Яя	(*ya*)	yard
Оо	(*o*)	gaunt			
Пп	(*p*)	pen			
Рр	(*r-hard*)	rod			

* The word "Щи" (shchi)—cabbage soup—is an example. "Щи" is about the next most frequently used word in any foreign tourist's vocabulary after "здавствуйте"—hello, and "гостииица" (hotel).

** The hard sign (ъ) is used in the middle of some words to divide consonants and vowels by hardening the former as in "объявлеиие" ob′yavléniye (notice, announcement) or "объедииеиие" ob′yedɪnéniye (association). When you see this sign try to make a distinct break between the letters it divides.

*** "Ы" is pronounced like i. The approximate English variation can be found by comparing the words "pill" and "peal". In the "pill" the sound *i* comes the closest to the Russian "ы", except that "ы" is a longer sound.

**** To get an idea of the effect "ь" has on a letter, take the two n's in the Spanish word mañana. The first "n" is pronounced as if with the soft sign and the second "n" without.

***** "Э" is pronounced like "e" in "men". Note the difference between "э" and "e": "это" (eto)—this; and "есть" (yest′)—is.

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